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RETROVERSION OF THE GRAVID UTERUS.

By THOMAS SKINNER, M.D., Physician to the Northern Dispensary, Liverpool; Fellow of the Obstetrical Society of London, etc.

[*Read in abstract, 29th July*, 1859.]

II.—RETROVERSIO UTERI POST CONCEPTIONEM.

[*Continued from page* 892.]

[BEFORE proceeding with the mechanism of the reduction of the displacement, I have to acknowledge an error which I have made while treating of the mechanism of the first class; viz., retroversio uteri *ante* conceptionem. I was not aware, until I saw the report of the last meeting of the Obstetrical Society of London in the *Lancet*, that Dr. Tyler Smith had arrived at the very same views of the mechanism as myself, and from similar data. Dr. Smith's views were first embodied in his lectures which appeared in the *Lancet* for 1856. In apology to Dr. Smith, for appropriating what was justly his own, I can only say, that it was quite unintentional on my part; and most likely the accident was owing to the fact, that Dr. Smith, without writing a separate monograph, had modestly wrought in the subject with the other material of his lectures, and that, in consequence, it was not separately indexed. I would only add, that I am not disposed to go so far as Dr. Smith in believing that "the displacement dates from the very beginning of pregnancy in the great majority of cases." (JOURNAL, 1860, p. 903). Leaving out the word "great", makes me at one with Dr. Smith.]

(*m*) *Mechanism of the Reduction.* Having, in a previous portion of this paper, endeavoured to demonstrate the mechanism of the displacement, I shall now briefly allude to the mechanism of the reduction.

I have said as much as, that the cervix is first in the order of displacement (page 493); and I fully believe that this order is always observed. I believe so, because, in the basculating or see-saw movement of the uterus during the filling or emptying of the bladder, or during the action of retroversion, from whatever cause, the os uteri has to pass through a much smaller space, or describe an equal portion of the arc of a much smaller circle, than is done by the fundus during the same movement; consequently, the os and cervix will reach their abnormal destination before the fundus will arrive at the hollow of the sacrum; and this fact will be more evident when we consider that, whilst the cervix is raised by the ascent of the bladder into the abdomen, the fundus is at the same time depressed; besides, in those cases where the womb is driven back by the force of the abdominal muscles, by a fall on the coccyx, or other such like cause, the fundus, dragging upon the utero-vesical fold of peritoneum, will assist in tilting the os above the pubes. For these reasons, I believe that the os and cervix uteri are the first in the order of displacement; and if they are so, it follows, by what appears to me to be a fixed law of nature, that they ought to be last in the order of reduction. This fixed arrangement seems to attend upon displacements of almost every kind; and, as I am not aware that the law has been previously observed, I will point it out a little more definitely. The practice of surgery affords us an excellent example in hernia. That portion of the intestine or tumour which is first in the order of displacement, is last in the order of reduction. In applying the taxis, we first return the portion last displaced; we retain it there, then the next portion, and so on, until the first portion displaced is the last to be reduced. Let us take one other example from the domain of obstetrics. In an arm presentation, the head and upper extremities of the child are first in the order of displacement. If this law holds good, the head and arm ought to be last in the order of reduction, both by natural and artificial means; and it is so. For, in the so-called spontaneous evolution of the fœtus, that portion which is second in the order of displacement (the trunk and lower extremities), is the first in the order of delivery; and that which is first in the order of displacement (the head and upper extremities), is the last to be delivered. When we interfere artificially with such malpresentations or displacements, we follow the same order in their reduction; we substitute the podalic, the second in the order of displacement, for the cephalic extremity, the first in the same order.

If it is true that such a law regulates displacements in general, it becomes a very essential matter for us to study the order in which they happen, so that, in applying mechanical power for their reduction, we may be found following the order of nature. Dr. Ramsbotham, in his valuable work on *Obstetric Medicine* (3rd ed., p. 627), and many other deservedly esteemed authorities, recommend attempting to bring down the cervical extremity first in the order of reduction, or at the same time with the elevation of the fundus. Bellanger and Lallemand have recommended introducing a lever through the meatus urinarius into the bladder, to accomplish the same object. (Boivin and Dugès, p. 83.) But if the view I am now advocating of the order of the mechanism of reduction is right, such a proceeding must be manifestly wrong. Besides being out of the natural order of reduction, it adds the substance of the os and cervix to the tumour, thereby causing the longest diameter of the uterus to correspond to, and become jammed in, the shortest diameter of the brim; it also takes away any possibility of gaining space by the elasticity of the abdominal wall above the pubes, as in every other direction there is an unyielding circle of bone. It is also very evident that any attempt to bring down the cervix *per vaginam*, or to push it down externally from above the pubes, will only be counteracting our efforts to raise the fundus *per rectum*.

There are other facts which prove that the practice is contrary to the mechanism. Among sixty-five cases, I have only been able to find one, Mr. Weir's (*Glasgow Med. Jour.*, vol. i, p. 267), where it is stated that bringing down the cervix *first* ever succeeded. In this case, great physical force was applied, Mr. Weir's hand being introduced wholly into the vagina, whilst his assistant's was inserted into the rectum. Now, although we have Mr. Weir's word for it, I think it is extremely improbable that, with the whole hand in the vagina and another occupying the rectum, any portion of the uterus could descend, much less be brought down. I am inclined to believe that the steps taken reduced the fundus; that the cervix of itself then came into position; and that the operator imagined he had succeeded in pulling it down. In the words of Dr. Carmichael, I believe that "*the cervix must become the depending part, when the uterus is raised into the abdomen.*" (*Annals of Medicine*, vol. iv.) In one of Mr. Hooper's cases (*Medical Observations and Enquiries*, vol. v, page 104), he tried to pull down the cervix, but entirely failed; he then adopted simple pressure on the fundus, and at once succeeded. This case was three months and a half advanced in pregnancy. Dr. Carmichael of Port Glasgow, speaking of one of his cases, says: "By pressing upwards in the vagina, I could raise it (the fundus) as high as the brim of the pelvis, but could not bring down the os tincæ." (*Annals of Medicine*, vol. iv.) In several of the recorded cases, it is stated that the os and cervix descended spontaneously after the fundus uteri was raised above the level of the brim; and, whether stated or not, I firmly believe that this order of reduction obtained in every case; and I am glad to find that there are distinguished authorities who hold a somewhat similar opinion—at least, so far as practice is concerned. Dr. Rigby says: "*We agree with Richter in the utter inutility in attempting to bring down the os uteri.*" (*Library of Medicine*, vol. vi, p. 81.)

There are only one or two other remarks which I shall offer in regard to the mechanism of the reduction; and first, I would observe that, as the transverse and right oblique diameters are the greatest, the longest diameter of the uterine tumour ought to be made to correspond to one or other of them in performing the operation of reduction. We know how difficult it is to return a retroverted unimpregnated uterus in the direction of the promontory of the sacrum; and how easily it may be accomplished, if there are no adhesions, by tilting the fundus round in the transverse or right oblique diameters, particularly if done with the aid of the uterine sound. The obstruction likely to be caused by the promontory of the sacrum is thereby avoided. Besides, the length of finger required in reducing the uterus in the transverse or right oblique diameters is much less than in that of the conjugate. In fact, in the transverse or right oblique diameters, we have the greatest possible space; we can apply the greatest leverage, with the greatest muscular power; and in these diameters we have the least obstruction to overcome. Finally, by raising the fundus and leaving the cervix to itself, the abdominal wall above the symphysis will yield, or the abdominal cavity itself will afford the cervix more space than could possibly be gained for it within the osseous circle of the true pelvis; more room will be gained thereby, and less obstruction will be offered to the reduction of the fundus, the main object to be attained.

[*To be continued.*]

Original Communications.

ON CERTAIN CHANGES IN THE FORM OF THE RED CORPUSCLES OF THE BLOOD, PRODUCED BY CERTAIN FLUIDS.

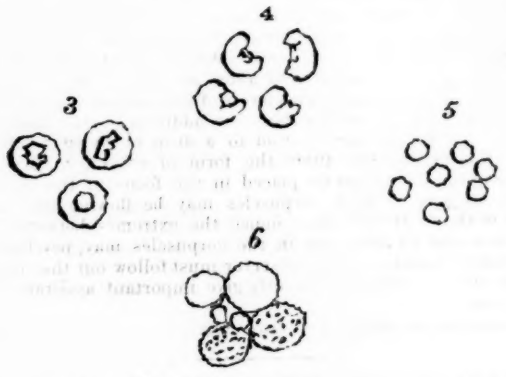
By William Addison, M.D., F.R.S., Fellow of the Royal College of Physicians, London.

[*Continued from p.* 798.]

Experiment iii. Take a fluiddrachm of sherry wine (or of fresh urine), and render it slightly alkaline with solution of potash; also, take a fluiddrachm of the sugar solution, acidulated with hydrochloric acid (*Experiment* 2). Receive a small drop of blood upon a slip of glass, and place near to it on one side the same bulk of the acidulated sugar-fluid, and at the same distance on the other side of the drop of blood place an equal amount of the alkaline vinous or urinous fluid. Let fall a thin piece of glass, so that the one fluid may come into contact with one side of the drop of blood, and the other fluid into contact with the other side of it. Upon examination, the forms of the corpuscles on the alkaline side will be found quite different from those on the acid side. That is to say, the corpuscles which float out into the alkaline fluid have roughened outlines (Forms 2, p. 798); whereas those which float out into the acid fluid have a smooth outline, and a bright matter of sundry forms conspicuous in their interior (Forms 3). Towards the central parts of the drop of blood, where the fluids have scarcely penetrated and where the corpuscles are massed together in rolls, the edges of the rolls will be found to partake of the characters due to each fluid. On the alkaline side, the edges of the corpuscles composing the rolls will have a confused, irregular, jaggy aspect, strongly contrasting with the smooth, neat outlines of those rolls of corpuscles which on the other side have been influenced by the acid fluid. If we follow the corpuscles as they continue to float out in the two fluids, we shall find them experiencing further but different changes of form. In the alkaline fluid, the subjoined phases 2, 4 and 5 of the alkaline series, and in the acid fluid the phases 4, 5, and

Alkaline Series.

6, of the acid series, will be seen. Moreover, if corpuscles, which have been changed to Forms 2 by the alkaline fluid, should float out into the acid fluid, they may be seen to assume, first, their normal form 1 (p. 798), and then a form of the acid series, 3, 4, or 5. Now, it will be seen that Forms 5 are very nearly alike in both series, the only difference being that Forms 5, resulting from contact with the alkaline fluid, are darker or more deeply coloured than Forms 5 the products of the acid reaction. Ultimately, in alkaline fluids, Forms 5 burst



Acid Series.

open and are wholly dissolved; in acid fluids, Forms 5 may burst suddenly, or suddenly enlarge their dimensions, the contents of the corpuscles partially escape, but the enlarged capsules remain (Forms 6). Various contortionary movements may occasionally be seen in the corpuscles when they float out from a slightly acidulated part of the fluid into a part where it is strongly alkaline, as when liquor potassæ is added to an edge of the thin covering glass (*Experiment* 1).

I have said, when examining a drop of blood in the usual way, without anything having been added to it, that corpuscles may be observed of the Forms 2; I may now add, that those which, flowing out in streams, become closely encompassed by films of air, often change their form to 2, or 4, or 5, of the alkaline series. A dilute solution of common salt, and fresh urine, notwithstanding its acid reaction, both produce Forms 2, 4, or 5 of the alkaline series. Sherry wine produces a mixture of Forms 2, alkaline series; and Forms 3, acid series. A neutral solution of refined sugar produces forms of the acid series. The forms which the corpuscles of the blood are most prone to assume, then, are those of the alkaline series: they assume these forms when nothing has been added to the blood, and their proneness towards these forms will sometimes counteract a slight acid quality in an added fluid.

Of the Liquor Sanguinis.

In the last Experiment 3, there is no stirring together of the blood and the extraneous fluids, therefore, there must be various degrees of intermingling between the liquor sanguinis and the added fluids: and it would be rendering an imperfect account of the phenomena were I to omit a special reference to the fluid in which the corpuscles of the blood naturally swim. In the experiments I have related, those corpuscles which come into contact with the added fluid, acid or alkaline, undiluted by admixture with the liquor sanguinis, are destroyed, and the fluid may be rendered turbid or reddened thereby. Where the added fluid and the liquor sanguinis are mingled in about equal proportions, there the Forms 4 and 5 are found. It is only in those places where the action of the added fluid is restrained by a large admixture with the liquor sanguinis, that the characteristic Forms 2 and 3 are to be seen. Now there is a difference, whether we consider the changes in the form of the corpuscles as the result of the application of the extraneous fluid, omitting all consideration of the natural fluid, the liquor sanguinis; or whether we regard the changes as the result of a small change in the quality of the liquor sanguinis wrought by the added liquid. It is more correct, we conceive, to look upon the changes described in the corpuscles of the blood as produced by slight changes in the liquor sanguinis, than to regard them as a result derived from the extraneous fluid, and omit to take into consideration the fluid element of the blood. It is a mixture of the added fluid and the liquor sanguinis which determines the specific changes in the form of the corpuscles. Our conclusion, therefore, is:—That changes in the properties of the liquor sanguinis dispose the corpuscles to change their form; and corpuscles which have changed their form to Forms 2, may be restored to their normal form by the gentle influence of an acid: and it follows, that a disposition in the corpuscles of the blood to change their form as a conse-

quence of an abnormal state of the liquor sanguinis, may be counteracted by the appropriate remedy.

Finally, none of the liquids mentioned in these experiments produce any troubling or deposit from the liquor sanguinis. A molecular matter, or a red colour appearing, is a proof of the destruction of many corpuscles; and the place where the destruction has occurred may always be found, unless there be streams flowing fast in the liquid. And it is very necessary, in repeating my experiments, to allow for the effect of these streams. In using the high powers of the microscope, rapidity of manipulation is impossible: the addition of the smallest quantity of an extraneous fluid to a drop of blood destroys some corpuscles, and alters the form of others, so that by the time the object can be placed in the focus of the object-glass, streams of fresh corpuscles may be flowing over the place of the destroyed ones; hence, the extremes between destruction and no alteration in the corpuscles may, perchance, be brought together. The observer must follow out the course of the streams, which frequently give important assistance in the observations.

Norfolk Square, Brighton, November 1860.

OBSERVATIONS ON THE MORBID ANATOMY, PATHOLOGY, AND DETERMINING CAUSE OF EMPHYSEMA OF THE LUNGS.

By A. T. H. WATERS, M.R.C.P., Physician to the Liverpool Northern Hospital; Lecturer on Anatomy, Physiology, and Pathology, in the Liverpool Royal Infirmary School of Medicine.

[*Read before the Royal Medical and Chirurgical Society.*]

PART I.

Views of Pathologists before the time of Laennec, and of the latter author. Frequency of the Disease. Importance of a knowledge of the Minute Structure of the Lung. Ultimate Pulmonary Tissue; its Arrangement and Structure. The different kinds of Emphysema. Vesicular Emphysema; its various forms. Modes of Preparation of Lung Tissue for examination. Changes which take place in the Air-Sacs in the different Stages of the Disease. Condition of the Blood-Vessels; of the Bronchial Tubes. Is the Disease attended with any Degeneration of Tissue? Interlobular Emphysema.

PREVIOUSLY to the time of Laennec, pulmonary emphysema was considered by pathologists as produced by an infiltration of air into the areolar tissue of the lungs. An imperfect knowledge of the anatomy of these organs, led to the supposition that a rupture of the air-cells would give rise to extravasation of air into the tissue, by which they were connected with each other. An improved anatomical knowledge and further pathological inquiry, have shewn us that the quantity of areolar tissue in the lungs is very small, that extensive rupture of the air-cells may take place without infiltration of that tissue resulting, and that the only parts where such infiltration does occur are those in which the above-named tissue surrounds the various lobules.

Laennec was the first to draw the distinction between the two kinds of pulmonary emphysema; viz., vesicular and interlobular. The former he recognised as consisting in a dilatation or distension of the ultimate portions of the air-tubes. Subsequent researches have tended to prove the correctness of the French physician's observations in this respect, although the theory he advanced of the determining cause of the disease, as I shall have hereafter to show, has given way under an improved knowledge of the physiology of respiration, and more extended pathological inquiry.

Since the time when Laennec wrote, many able observers have directed their attention to this disease; nevertheless, the information we possess with reference to it is insufficient to enable us to generalise with certainty on its essential nature; and there are numerous points in connection with its pathology and determining cause on which investigations are necessary, in consequence of the diversity of opinion which exists thereon.

Of the great frequency of the affection in varying degrees of severity, no one who has been engaged in extensive public or private practice, can entertain any doubt; and, considering the gravity of the symptoms the disease produces in its progress, and the tendency which exists for other organs to become secondarily involved, we cannot but admit the great importance of an early recognition of its symptoms, and a more accurate knowledge of its essential nature.

In speaking of the disease, Lebert has the following remark in his *Pathological Anatomy*. "Few diseases have given rise in the last twenty years to so many theories, so many explanations, more or less conjectural, and as no one of them appears to us satisfactory in the present state of science, it is the more essential to describe in a rigorously exact manner everything which relates to this affection, in order that for the future these materials may serve to establish doctrines more generally satisfactory on the subject."

Again, writing on the same subject, Rokitansky observes:—"The conditions giving rise to the production of emphysema, and its pathology in general, although much labour has been devoted to the affection, are still far from clear.

To the study of morbid anatomy and pathology, a knowledge of minute structure is essential; hence the rapid strides which these sciences have made since the microscope has revealed to us the intimate arrangement of the various organs of the body; but, important as such knowledge is to the full appreciation of all diseased structure and function, its value becomes doubly manifest with reference to the disease now being considered, for there is probably no affection of the body, the symptoms and physical signs of which are so readily explicable from an acquaintance with the structural changes and modifications from the conditions of health by which it is accompanied, as that of pulmonary emphysema.

Strongly impressed with the force of Lebert's remark, that it is "essential to describe in a rigorously exact manner everything which relates to the affection," and therefore to detail minutely the progressive changes which take place from the earliest periods of the disease to the time of its full development, it becomes necessary for me briefly to describe the intimate structure and arrangement of the ultimate pulmonary tissue, in order that the changes above alluded to, of which it is the seat, may be the more readily understood.

The bronchial tubes of the lungs, after several divisions and sub-divisions, which for the most part are of a dichotomous nature, terminate in a dilatation, into which open a number of cavities, which constitute the ultimate expressions of the air-tubes. These cavities, to which various names have been given, I have elsewhere called *air-sacs*, as being, in my opinion, more appropriate to their shape and arrangement than any term hitherto used; and the series of air-sacs connected with the extremity of each bronchial twig, with its system of blood-vessels, etc., I have called a *lobulette*.

Every lobule of a lung is composed of a number of lobulettes, and thus the description of a single lobulette will suffice for that of the entire lobule.

Each lobulette consists of a collection of air-sacs, which vary in number from six to twelve. The air-sacs are somewhat elongated cavities, communicating with the dilated extremity

Fig. 1.—Healthy Human Lung. Drawing of a terminal bronchial tube, with a group of air-sacs, or lobulette, connected with it. *a*, the terminal bronchial tube; *b*, the dilated extremity of the terminal bronchial tube; *c c c*, individual air-sacs. At *d*, a bristle is seen passed into an air-sac; one end is seen opening into the common cavity in which the bronchial tube terminates. At *c c*, are seen the openings of other sacs which lie beneath those which are exposed; six sacs are seen converging to the common centre. The markings in the air-sacs denote the boundaries of the alveoli.

of a bronchial tube by a circular opening, which is usually smaller than the sac itself, and has sometimes the appearance of a circular hole in a diaphragm. When this is the case, the

sac dilates suddenly beyond the opening. The sacs of the lobulette are placed side by side, and are separated from each other by thin membranous walls. Their shape, when properly inflated, or when distended by some material which has set in them, as gelatine, or a mixture of wax and turpentine, is polygonal. They approach the circular form, but in consequence of their mutual pressure, the parietes become somewhat flattened. The sacs increase slightly in size as they pass from the bronchial tube to their fundus, the latter being usually the broadest part of the sacs; but they often have an almost uniform diameter throughout. All the sacs pass from the extremity of the bronchial tube *towards* the circumference of the lobule of which the lobulette forms a part; they consequently radiate from the tip of the bronchial twig. The sacs connected with one lobulette do not communicate with those of another lobulette. As the sacs pass towards the boundary of the lobulette, they often bifurcate; and here and there circular orifices exist, leading to smaller air-sacs. If we trace the air-sacs from their fundus, we may say that, passing from the periphery of the lobulette, and diminishing somewhat in size, they all terminate in the dilated extremity of the bronchial

Fig. 2.—Healthy Human Lung. (From an infant under one year of age.) Two terminal bronchial tubes with two groups of air-sacs, or lobulettes, divided horizontally. *a a*, large bronchial tube; *b*, terminal bronchial tube; *c c c*, air-sacs; *d d*, openings leading to air-sacs beneath those exposed.

tube; as they thus proceed, they often join two or three together, and these terminate in a single mouth. The tube which results from the union of two or more sacs, is smaller in capacity than the sacs taken together, but greater than either of them individually. The dilated extremity of the bronchial tube, above alluded to, constitutes the *point de réunion* of all the air-sacs, and may be considered as the common centre of the lobulette. The air-sacs of the adult human lung vary in diameter from 1-45th to 1-85th of an inch. (See Figs. 1, 2, 3.)

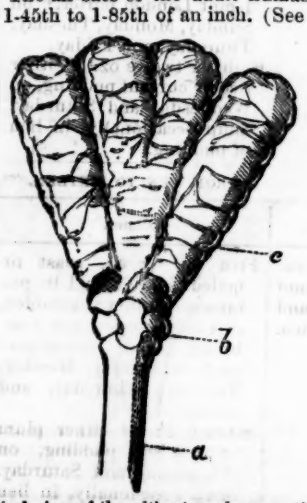


Fig. 3.—Theoretical view of the ultimate pulmonary tissue—viz., terminal bronchial tube, its dilated extremity, and its group of air-sacs, or lobulette—divided transversely. *a*, terminal bronchial tube; *b*, cavity in which the air-sacs end; *c c*, the air-sacs (the central one is seen to divide). The markings denote the alveoli of the air-sacs, and of the dilated extremity of the bronchial tube.

The walls of which the air-sacs are composed, are exceedingly thin and much sacculated; *i.e.*, they have in them a number of small, shallow, cup-like depressions, separated from each other by portions of membrane, which are more or less raised, and project into the interior of the sac. The bottom of the air-sac presents the same appearance as the lateral walls; and the cup-like depressions, or *alveoli*, are there very numerous. (See Fig. 4.) The number of these alveoli varies very much; I have counted as many as ten at the fundus of an air-sac in a cat's lung; in the human lung I have counted five and six, but the number is not usually quite so great. I have found the entire number in each air-sac varying from eight to twenty.

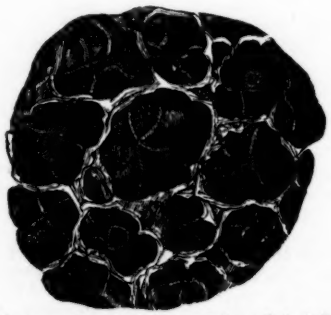


Fig. 4 represents a very thin slice of a cat's lung (injected, inflated, and dried), from the surface of the lung. The eye is looking upon the cut surface. The depressions, *a a*, are the bottoms of the air-sacs, resting on the pleura. The light coloured lines that surround them are their walls, and the small depressions seen within the walls, *b b*, marked off by less distinct lines, are the alveoli. The specimen from which this drawing was made, was a very good one, and the drawing may be considered as fairly representing the appearance presented.

The air-sacs externally, by their fundus, rest on the pleura, but within the substance of the lung they in part rest on, and are supported by, the bronchial tubes and blood-vessels.

The air-sacs are separated from each other by thin walls, the membrane composing which, in a lung inflated and dried, is very transparent. The projection of this membrane in the shape of thin processes, having a sharp margin, constitutes the septa between the alveoli; and wherever an opening exists leading into a smaller sac, this membrane projects in a similar way, and forms a circular orifice, which is much smaller than the cavity to which it leads; the sac, in fact, dilates abruptly on the distal side of the opening. It is in the membrane composing these walls, and in the septa of the alveoli, that the capillaries of the pulmonary artery are spread out.

Each lobulette is separated from those by which it is surrounded by walls which appear to resemble in every way the walls of the air-sacs; and in an adult inflated and dried lung, careful observation is necessary to make out the partitions. That perfect septa do exist, is proved by laying open, in a recent lung, a bronchial tube to its ultimate division, when by placing a fine blowpipe in it, and blowing down it, a single lobulette is alone inflated.

As I have before mentioned, a number of the lobulettes constitutes a lobule. These lobules are of various sizes, their boundaries on the surface of the lung are distinctly seen; they are each surrounded by a membranous wall, which is dense and strong, allowing of no communication between the blood-vessels of adjoining lobules. The lobules are connected together by a small quantity of areolar tissue, in which the branches of the pulmonary veins take their course.

Structure of the Air-Sacs and Alveoli.

The walls of the air-sacs and alveoli are formed of yellow elastic fibrous tissue, a basement membrane, and an epithelium. The elastic tissue is arranged in bundles, and singly. It is found surrounding the mouths of the air-sacs, running through their walls in various directions, and encircling the alveoli. The fibres traversing the walls are placed at some distance from each other, so that spaces are left between them where the blood-vessels are uncovered, except by the basement membrane and epithelium. At the circumference of the alveoli and at the margins of the sacs, the fibres are often gathered into bundles of considerable size.

It is to this tissue that the elasticity of the air-sacs is due; and the changes which take place in it, in the disease under consideration, constitute one of the most important features of the affection.

The basement membrane is thin, homogeneous, and transparent. It is a prolongation of that lining the bronchial tubes; but it becomes finer and more delicate as it passes from the

latter vessels into the air-sacs: it is covered by an epithelium, consisting of small flattened nucleated cells.

Having premised these observations on the healthy structure of the lung, I pass on to examine the changes it undergoes in the progress of emphysema.

[*To be continued.*]

SCROFULOUS DISEASES OF THE EXTERNAL LYMPHATIC GLANDS:

THEIR NATURE, VARIETY, AND TREATMENT.

By P. C. Price, Esq., Surgeon to the Great Northern Hospital; the Metropolitan Infirmary for Scrofulous Children at Margate; etc.

III.—Tuberculous Disease of the External Lymphatic Glands.

[*Continued from p.* 818.]

General Treatment. From the earliest times, tuberculous conditions of the lymphatic glands—the true scrofulous glands of both ancient and modern writers—have obtained every kind of treatment which art could suggest. It is needless to recapitulate the various *specifics* used by the fathers of medicine, and venerated through a long series of years; and, although the majority have been dismissed from our modern *Pharmacopœia*, still one is almost inclined to believe that, from persistent use and recommendation, rare virtues were really found in them. There is, perhaps, no subject in medicine which calls forth our ridicule so much as the comprehensive treatment of scrofulous affections by the older physicians and surgeons of all civilised nations. How vainly do we endeavour to suppress a smile when reading the long list of *specifics* which many an ancient writer describes with most unwavering faith; and how that smile is turned into laughter when, in still later times, we find that our own countrymen were not behindhand in awarding (as the courtly John of Gaddesden, of *Rosa Anglica* fame, has recorded) to the excrement of doves and the blood of weasels an excellent virtue over scrofulous sores, notwithstanding their inferiority to the efficacy of the royal touch! Through centuries, when learning and science in other branches were fast improving, the same superstitious ignorance directed the skill and practice of many (for that time) excellent physicians; and it is in vain we look for any really definite and sensible employment of medicinal means in the treatment of scrofulous affections, till Wiseman, deploring the want of accurate knowledge on the subject, wrote his celebrated treatise on *The Struma or King's Evil*, in the reign of our Charles II. From this period, physicians and surgeons seemed to vie with one another in rendering the treatment of the disease as scientific and simple as possible; so that at the present time it may be justly said that, in the hands of educated men, there is no affection of common occurrence which meets with more skilful management.

The general treatment required in the management of cases of tuberculous disease of the external lymphatic glands may be thus considered: firstly, in giving due attention to what may be called the natural requirements of bodily health, such as good and nutritious nourishment, pure and fresh air, combined with light, and the enjoyment of healthy exercise; secondly, in the administration of certain medicines.

Tuberculous disease of the external absorbent glands has already been shown to occur in individuals in whom the constitutional powers are low, or affected by certain peculiarities which render them more than ordinarily susceptible to various kinds of diseased action; and hence, proper attention to the natural requirements of health, and the administration of certain efficacious medicines, often tend very greatly to improve and renovate impaired conditions of constitution.

My own observations lead me to believe that the occurrence of glandular tuberculosis is most intimately associated with depraved states of the general powers; and I am convinced that, in a very large proportion of cases, the earliest manifestation can be traced to a period in the life of the patient when an insufficient diet and imperfect sanitary comforts formed the meagre supports of a frame which, perchance, had already sown within it the seeds of hereditary tendency to mischief. Dr. Tyler Smith, in his work on *Scrofula*, has well insisted on this point; while the practical researches of Lugol, Baudelocque, Guersant, Hufeland, Phillips, Lebert, etc., have likewise corroborated what, on very slight consideration, appears so apparent.

At the Children's Hospital at Margate, many of the little patients, when admitted, are the subjects of both incipient and advanced tuberculous disease of the lymphatic glands; and oftentimes they are in such a low and impoverished state that it is astonishing not to find still worse forms of scrofula than are generally seen. These children are rapidly improved, and rendered far less susceptible of continued and fresh attacks of disease, by a liberal and sustaining diet; and while, doubtless, improvement is in some way due to the medicinal means that are employed, still I am persuaded that the greater amount of good is effected by a proper allowance of those resources which Nature has provided for revivifying the flagging powers of a worn and distressed constitution.

In addition, it is all important that, besides good and nutritious diet, pure, fresh, and invigorating air, with well lighted and ventilated apartments, should be afforded to scrofulous patients, and especially to those who are the subjects of direct tuberculous conditions of the glands and other organs. I cannot, while endeavouring to impress most strongly the necessity of due attention to the use of natural and sanitary measures, as taught me by a large experience in the treatment of all kinds of scrofulous maladies, avoid quoting from Dr. Smith's valuable work the following:—"In the place referred to (a union workhouse in Kent), the parish surgeon reported that, on the 29th April, 1841, there were then in the house seventy-eight boys and ninety-four girls; and that all the seventy-eight boys had enlargement of the neck, and forty-two had likewise goitre; that of the girls and infants, ninety-one had enlarged glands at the back of the neck, and forty-three also goitre.... The diet in these cases had been bread and cheese for dinner four times a week; suet pudding and vegetables two days, on the Poor-law scale; and meat only one day of the week for dinner, and then the usual stinted workhouse quantity. Besides this scanty and innutritious food, which may, for *growing children*, be truly called a scrofulous diet, the dormitories were ill ventilated and excessively crowded." (P. 39.)

In contrast with this scale of diet, I submit that in use by Mr. Weekley, the excellent and kind hearted manager of the Children's Infirmary at Margate, for those patients who are convalescent, and able to enjoy the out-door advantages of this well conducted establishment; while every necessary is granted to those who require more important medical and surgical treatment.

Diet List of the Metropolitan Infirmary for Scrofulous Children at Margate.

FROM FIVE TO TEN YEARS OF AGE.

Breakfast.	Dinner.	Supper.
Four or five oz. bread and butter, and ½-pint milk in water.	Three or four oz. roast or boiled meat, with ½-lb. potatoes, or potatoes and bread, or other vegetables, ½-pint London porter,* on Sunday, Monday, Tuesday, Thursday, and Friday. Eight or twelve oz. of either rice or currant pudding, on Wednesday and Saturday. Soup occasionally, in lieu of pudding.	Four or five oz. bread and butter, and ½-pint milk in water.

FROM TEN TO SIXTEEN.

Breakfast.	Dinner.	Supper.
Six or seven oz. bread and butter, and ¾-pint of tea.	Five or six oz. roast or boiled meat, with 1 lb. potatoes, or other vegetables, or ½-lb. potatoes, and 3 oz. bread, ½-pint London porter,* on Sunday, Monday, Tuesday, Thursday, and Friday. Sixteen oz. of either plum or currant pudding, on Wednesday and Saturday. Soup occasionally, in lieu of pudding.	Six or seven oz. bread and butter, and ¾-pint of tea.

* The quantity of porter or stout, which is the very best, is controlled by the order of the medical officers; as, indeed, are all the articles of food, which are most liberally allowed, according to the requirements of individual cases.

Children, and, indeed, all individuals who are the subjects of tuberculous disease of the lymphatic glands, exhibit various constitutional symptoms which demand the foremost attention of the practitioner; for, until such be amended, it is generally useless to employ those remedies which are intended to have a special influence on the local affection.

When tuberculous disease of the glands occurs independently of other scrofulous affections, or is the chief disturbing malady, there will usually be more or less irregularity of the digestive functions. Dyspepsia is a very frequent symptom, and one that causes considerable inconvenience. Again, there is a general debility about all the functions and organs of the body. The muscular, nervous, mucous, secretive, and arterial systems are deranged; and the whole constitution appears undermined, irritated, and depressed. To improve that irregularity of function which presents the most important relationship to the local affection, is the foremost aim of the practitioner. If the stomach and bowels are deranged—and such will frequently be found the case—attention must be bestowed to the regulation of their proper functions and actions; and, remembering the importance of this feature, I invariably commence the treatment of a case which is placed under my care by administering either an emetic or purgative, or both, provided special symptoms do not forbid the practice.

Having restored a better tone of health by the allowance of a good and liberal diet, bestowed attention to all sanitary measures, and obtained a cessation of, or a marked improvement in, the irregular action of various organs, by the administration of certain medicines, as tend to promote such an aim, as tonics, alteratives, etc., it will then be expedient to attend specially to the glandular mischief.

The following is a list of those agents which have been selected by experience to prove most advantageous in the medicinal treatment of glandular tuberculosis.

Iodine, and its combination with various substances, constituting the following preparations: Iodide of potassium; iodide of sodium; iodide of ammonium; iodide of iron; iodide of lead; iodide of mercury.

Bromine and its combinations: Bromide of potassium; bromide of mercury.

Mercury and its combinations: Calomel; bichloride of mercury; mercury and chalk; iodide and biniodide of mercury.

Iron and its combinations: Sesquioxide of iron; carbonate of iron; sulphate of iron; sesquichloride of iron; iodide of iron.

Barium and its combination: Muriate of baryta.

Potassium and its combinations: Liquor potassæ; carbonate and bicarbonate of potash; iodide of potassium; bromide of potassium.

Sodium and its combinations: Carbonate and bicarbonate of soda; chloride of sodium; iodide of sodium; bromide of sodium.

Calcium and its combinations: Lime-water, or liquor calcis; chloride of lime: hypophosphite of lime; bone-earth.

Various *minerals*, as gold, manganese, etc.

Cod-liver and other *oils*, as neats'-foot, cocoa-nut, olive, etc.

Mineral acids, consisting of hydrochloric acid, nitric acid, sulphuric acid.

Vegetable tonics and bitters: Quinine; barks of various kinds; bitter infusions.

Vegetable extracts, etc.: Conium (hemlock); digitalis.

Purgative medicines, of both mineral and vegetable compositions.

Salt Water and other Baths. These various medicinal agents are exhibited by the mouth, in a soluble form; or through the skin, by means of local applications and baths.

Iodine. First in the list of all medicines that are of value in the treatment of scrofula stands iodine. It was, as is well known, discovered by M. Courtois in 1811, and investigated by Sir H. Davy and M. Gay-Lussac. Since this period, mainly through the researches of Drs. Monson, Coindet, M. Lugol, etc., it has been considered almost as an infallible specific. No one who has paid attention to the therapeutical action of this agent can deny that, when judiciously administered, it does not possess a certain distinctive influence over low, tardy, subacute or chronic inflammatory disturbance of the absorbent glands. We have already seen that such is the case; and it now remains to show to what extent, so far as an individual experience is concerned, it is available as an influential agent in the reduction or removal of glandular enlargements and ulcerations dependent on tuberculous implication.

In the early stage—the very first—of threatening tuberculous invasion of the glandular system, I believe a systematic and judicious use of iodine is oftentimes fraught with the greatest amount of benefit. It usually results that enlargement of a gland ensues before the actual deposition of tuberculous matter. This increase in size is dependent, in all probability, on direct irritation propagated by the blood; and if it continue for some considerable period, which it frequently does, ere the specific tuberculous action obtains, it is very possible that, in a large proportion of cases which are judiciously treated, amendment will speedily ensue, especially if the general health be well sustained. In such cases, the most convenient form appears to be the combination of iodine with an alkali, in the salt known as the iodide of potassium, provided it is advisable to diminish or remove the glandular mischief, independently of any other complication. The employment of this salt is often attended with the most encouraging and satisfactory results. Experience has taught me that it is, as a rule, administered in small but repeated doses more advantageously than in larger ones. This, I believe, is now an almost universally received opinion, and one that is commonly acted upon, not only in this country, but on the Continent: and so important did M. Lugol consider the administration of small doses, that he rarely prescribed more than one grain of iodine, and sometimes less, to be taken in the course of the day. M. Baudelocque is even more reserved in his use of the drug, and commences with an eighth of a grain, or a little more. Two modern writers (Drs. Smith and Ranking), to whose works I have already referred with advantage, are even still more conservative in prescribing the maximum doses of iodine; and doubtless their opinions, as well known practical physicians, have served very materially to moderate the large quantities of this drug which were formerly thought actually compulsory to obtain the desired effect. My own plan in children's cases is to give grain or half-grain doses of iodide of potash twice or thrice in the course of the day, increasing or diminishing the quantity in accordance with the requirements of individual cases. For general purposes, I prefer adopting the forms which have been so beneficially employed by M. Lugol, and which I extract from Dr. Ranking's practical treatise on *Scrofula*.

No. 1. Iodini gr. ¾; potass. iodidi gr. 1½; aquæ ʒviij.
„ 2. „ gr. 1; „ „ grs. 2; „ „
„ 3. „ gr. 1¼; „ „ grs. 3; „ „

There is no doubt in my own mind that the action of iodine is more advantageously obtained when the drug is combined with an alkali, in the form recommended by this distinguished French practitioner, and I speak from considerable practical experience. The actual quantity of iodine that it is expedient to employ before the system becomes so influenced as to obtain resolution of glands enlarged in the incipient stage of tuberculosis is, as slight consideration will at once suggest, very uncertain. No definite rule can be laid down. Individual cases require independent treatment; and the skill of the surgeon must be invoked on every occasion in which it is deemed expedient to employ the medicine. In some cases I have used, with immediate beneficial results, very small quantities of iodine; while in others it has been necessary to continue increased doses for a very considerable period. I have already mentioned an instance in which the employment of iodine was extended over a period of four to five months before direct advantage ensued; and I have met with various examples which have shown me how important it is not to lead patients to anticipate with too much hopefulness the advantages to be derived from a limited and moderate course of the drug. When iodine has been given for some time, and no adequate advantage has been obtained, it is usual to suspend its administration for a period, and by other treatment endeavour to remedy the cause which, in all probability, prevents its beneficial operation. I have constantly found that the good effects of iodine have been established after the use of an emetic and a course of gentle purging; and it is now my common practice to have recourse to such proceedings, provided I fail to obtain, after a fair trial, those advantages from the drug which, after due consideration, I had a right to expect. I shall not give any cases to prove the correctness of what I have stated; but I have in my note-book many, the recital of which would at once show how irregular is the action of a medicine which is too often administered with almost blind credulity. As the enlargement that precedes the deposition of tuberculous material is slow in progress, so also is the restoration of the affected glands when reduced by iodine to their normal condition and size.

Besides the preparations of iodine with potash, it is usual to resort to its combinations with other substances. The iodide

of sodium has been employed by some practitioners, but I have myself never resorted to its use. Iodide of ammonium has been recommended lately by my friend Dr. B. W. Richardson, and was formerly employed by Baudelocque. I have made trial of its efficacy, and my experience enables me to speak somewhat definitely of its value. M. Gamberini of Bologna (*Bulletino delle Scienze Mediche; Gazette Hebdomadaire*, June 1st, 1860; British Medical Journal, June 30th, 1860) has of late made an extensive use of the preparation, and states that it is indicated in all cases where the other iodides are of use; and that it produces a rapid cure. It is seldom that intolerance follows its administration; but when it does, the symptoms denoted are violent pains in the throat and heat in the stomach. The dose is from two to sixteen grains daily; but I cannot believe that such a large amount as the latter quantity is ever needful. The advantage of the iodide of ammonium over other iodides is, that its action is more rapid, and the dose generally smaller.

Often in the administration of iodine, from various circumstances, it is expedient to combine it with some mineral tonic, especially in the cases of delicate children, the subjects of glandular disease. There is no preparation which is so beneficially employed as the combination of iodine and iron, in the form of the syrupus ferri iodidi (*Phar. Lond.*), when such necessity exists. Quantities varying from half to a whole teaspoonful may be most advantageously exhibited twice or even three times a day, especially when combined, as will be presently stated, with cod-liver oil. I am in the habit of making extensive use of this medicine, particularly in cases of incipiently enlarged tuberculous glands in the poor and ill nourished children who apply at the Great Northern Hospital; and the drug is also in the same favour with the majority of my colleagues at this institution and at Margate.

I am not aware of any very definite experiments having been made as to the value of this preparation in the various states of tuberculous glands; but I cannot avoid alluding to the results obtained by Dr. Cotton, one of the physicians to the Brompton Consumptive Hospital, in his treatment of twenty-five cases of phthisis pulmonalis. Dr. Cotton arrives at the conclusion that, "although iodide of iron is very far from exhibiting what might be termed a *specific* effect, it nevertheless seems to act very beneficially in a fair number of consumptive cases, especially in those where the disease is only in an early stage." (*Med. Times and Gazette*, June 16th, 1860.) The analogy between tubercle of the lung and lymphatic glands may perhaps serve to show the value of the medicine in the latter form of disease.

The iodides and biniodides of lead and mercury have been strongly recommended by some surgeons, as possessing considerable advantage in the treatment of various forms of *scrofulous* glands. When a syphilitic taint exists with the more chronic malady, the iodides and biniodides are certainly powerful remedies, and have been much extolled by M. Ricord and other continental surgeons; but if such complication do not exist, perhaps, little real advantage is to be gained by the internal administration of either.

The therapeutical effect of iodine has very lately attracted considerable attention in the Academy of Medicine in Paris, owing to the statement made by M. Rilliet of Geneva, that small doses of it cause iodism. Opposed to this assertion are the opinions of some of the most eminent of the Parisian school. M. Velpeau states that he must have given iodine, in varying doses, to upwards of fifteen thousand patients during his professional career; and that he has never seen iodism produced. In two instances, flesh was lost; while occasionally coryza and ptyalism resulted; but the mamma and testis were never influenced by even the largest amount that was exhibited. (*Lancet*, April 16th, 1860.) My own experience tallies with that of this distinguished French surgeon. I have never met with an instance in my own practice in which any destructive influence was exerted over the normal tissues of the body. I have, however, often read of its precocious absorptive properties; but have happily failed to become personally acquainted with them. It is not unusual for too large and frequent doses of the medicine to produce nausea, loss of appetite, giddiness, browache, lassitude, and a mawkish state of the breath. On the other hand, iodine, in proper and judicious quantity, tends to impart health and increased functions to many of the tissues of the human frame.

Bromine. Bromine has been substituted for iodine by some practitioners, under the supposition that it possesses more direct fluence over the various stages of tuberculous and scrofulous glands. M. Kopp of Hanau has given great attention to an extended trial of this drug, and has no hesitation in stating that, as a general rule, he conceives its effects are inferior to those of iodine. In combination with potash, it has obtained, however, great notoriety, as forming one of the principal virtues of the waters of Kreuznach. It is doubtful if bromine in any form is as useful as iodine. It has been argued that its administration can be pushed to a greater extent than is possible with iodine, and that its effects are more rapid than those of the sister drug. I am unwilling to allow my own individual experience of this medicine to influence others, as, I conceive, I have not sufficient evidence to permit of any definite deductions being drawn as to its stated virtue in glandular tuberculous disease.

[*To be continued.*]

Transactions of Branches.

BATH AND BRISTOL BRANCH.

DELIRIUM TREMENS.

By Edward L. Fox, M.D., Physician to the Royal Infirmary, Bristol.

[*Read September 27th*, 1860.]

One form of delirium has given the name to a special disease, "delirium cum tremore," "delirium tremens," "delirium tremefaciens." It may be distinguished from what Dr. Peddie calls "delirium ebriosum," in which an acute maniacal attack supervenes on one fit of intoxication, and is commonly induced by some depressing emotion. This latter state is characterised by a ravenous longing for more drink, and by maniacal delirium. It may be distinguished also from delirium traumaticum; for, although this latter condition may be purely delirium tremens, yet it may be delirium ebriosum, and it may still more often be a typhoid delirium, which is a symptom of the sympathetic fever which occurs after injuries in persons whose blood is full of alcohol. Delirium tremens is of the most varied intensity. External impressions at the commencement of the disease have only in a slight degree lost their power in directing the course of mental activity. The patient is over busy in his daily work. He feels that he is incompetent for its adequate performance, and shrinks suspiciously from his incompetence being remarked by others. He overdoes things—is too elaborate in his carefulness. He is restless and cannot keep still. Sleeplessness commences; and, after a night or two of much restless disquiet, he remains in bed, imagining that he is performing his work, or anxious to undertake it; and he lies in a state of almost perpetual motion, with eyes staring open, and often in a condition of the utmost complacence. This condition, however, will lapse into or alternate with one in which he will experience many of the horrors of a lost soul. He sees a thousand demoniac shapes grinning in triumphant malice at having won him as their prize; he hears their laughter of savage glee, and feels their arms encircling him to bear him down to the regions of the damned: or he is tormented by hideous insects or reptiles covering the bedclothes, and crawling on his limbs; or he may be enwrapped in the coils of a serpent, and every motion of his body may seem to hasten the moment when the reptile's fangs shall be darted into his flesh; or loathsome spiders of hideous proportions run over his limbs, whilst toads of preadamite size sit constantly on each side of his pillow.

By night and day, the illusions and hallucinations persist. Without ceasing for a moment, he goes on raving and trembling, and all restraint rouses him to fury. Sometimes indeed "the horrors" may be wanting, and the patient lies calm day and night in a placid condition, busy indeed and full of delusion, interpreting his attendants as boon companions, but feeling aggrieved at being considered an invalid.

In considering the nature, the pathology, and the treatment of the disease, it may be possible to arrive at the true understanding of this *vexata questio*.

1. *Nature.* 1. It is not inflammatory. No exudation nor other inflammatory product has ever been found at a *post mortem* examination. 2. There is neither of necessity hyperæmia nor anæmia. 3. The disease must therefore come under that division of delirium included under the head of toxæmia.

What, then, is the poison in the blood? The answer has usually been "alcohol." There is no doubt that excess of alcohol is in all cases the predisposing cause of the disease.

Strictly speaking, delirium tremens does not occur except in those who imbibe large quantities of this poison; and in almost every case the delirium has burst out whilst the patient is still in the constant daily use of alcoholic drinks. My colleague, Mr. Leonard, tells me that in all his experience, as surgeon to the Bridewell in this city, although many of the inmates of that prison are habitual drunkards, he has never seen any instance of a person becoming affected with this disease a few days after admission, that is, after a removal of all stimulants. The statistics of large prisons prove negatively that which almost all the most carefully recorded cases in civil and military hospitals prove positively, that the disease comes on during the persistance in, and not from the sudden removal of the accustomed stimulants. But in saying this, a distinction must be made between delirium tremens, as seen in private practice or in the medical wards of a hospital, and the delirium cum tremore which occurs in drunken and debilitated subjects after the shock of some serious injury or accident.

The two diseases, though connected by near affinities, yet recognise, as their exciting cause, two distinct conditions of cerebral circulation.

Is alcohol the exciting cause of delirium tremens? It doubtless may be found in the blood in this disease. It has even been discovered in the cerebral ventricles. But, on the other hand, a vast number of confirmed drunkards, and of those who are ever tippling a little, and being always slightly muddled, escape this disease. And again, the delirium in this disease is essentially different from that delirious incoherence, which is the sign of one stage of inebriation; the delirium of this latter state never being of that gloomy and horrific description, which in the former complaint has not unfrequently led to suicide. Not only is the character of the delirium essentially different, but the nerves of special sense are affected in a very opposite manner in acute intemperance, and in this the worst form of chronic alcoholic intoxication. In the former, double vision is a symptom nearly constant, and dimness of sight is generally present, and is due probably either to alcoholic poisoning of the retinal circulation, or to the same state affecting the optic centres. Not so, however, in delirium tremens. Double vision is not often present, and in the early stage of the affection the eyesight is extremely clear. Later, the patient is troubled with muscæ volitantes, which may be due to the fact that some parts only of the retinal expansion receive the sensory impressions; and although hallucination is frequent, illusion still more so, delusion most frequent of all, yet the optic apparatus is not at fault. The mind is to blame for these phenomena, being unable to check external impressions and to bring them to the bar of its reasoning judgment. Thus too, in the one case, the sense of hearing is dulled, even to absolute extinction; in the other it is often acute, and sometimes almost preternaturally so. There is a similar difference in the two conditions with reference to the senses of taste, smell, and touch.

Granting, therefore, that alcohol is not, in itself, directly the exciting cause of the delirium, we must look to the conditions its ingestion produces in the circulating fluid. Thus Prout, and after him, Vierordt have proved that even a moderate use of alcoholic liquors causes both an absolute and a relative diminution in the amount of carbonic acid excreted. The increased excretion of carbonic acid which accompanies digestion, is considerably checked by the use of spirits. If this is the effect of slight doses of alcohol, what will be the effect of large quantities taken daily, without any interruption, or opportunity for more efficient decarbonisation. Of course the constant diminution in the carbonic acid secreted, gradually causes a slow but sure augmentation of carbonaceous material in the blood; so that this fluid will sometimes contain as much as 30 per cent. more of this matter than in health, and will thereby in some cases assume an oily or even a milky appearance. The renewed supplies of alcohol, creating an artificial stimulus to the motions of the heart and frequency of respiration, and thus increasing the amount of tissue detritus, will add still more to the baneful carbonaceous accumulation. It is easy, therefore, to understand how unfit this dark fatty carbonaceous blood is for the nutrition of any organ of the body, and how especially incapable it would be in its nature and consistence for the due performance of those regulated physical conditions of osmosis in so fatty an organ as the brain.

In this condition, as in the delirium of lung-disease with increased carbonic acid in the blood from obstruction to the pulmonary oxygenating surface, there is considerable diminution in the amount of phosphates excreted in the urine, being possibly to some extent evidence that the delirium is a manifestation of very slight mental activity, consequent on a want of due supply of red arterial blood.

II. *Pathology.* The second question of importance is as to the pathology of this disease. What condition of brain is found in the fatal cases?

Abercrombie, mistaking the nature of the complaint, says, that "it begins with depression of spirits, which passes off suddenly, and is followed by an unusual degree of cheerfulness, and then by maniacal excitement. The patient dies from sudden sinking of vital powers, supervening on high excitement without coma. Stimulants do good. The only *post mortem* appearance is increased vascularity of the pia mater"; a cause quite insufficent of itself to induce so fearful a series of phenomena. The effect of the poisonous matter circulating in the brain is, that some nerve-cells are nourished, whilst others are not only left without nourishment, but are filled with a poisonous material which entirely annihilates all power of action. In many cases the arteries of the brain are atheromatous, as in almost all old cases of intemperance; and some of the finest capillaries may be obstructed by the same deposit, interfering still further with the nutrition of the brain. There then, in the malnutrition of the brain, or rather in the unequal nutrition of various cell-groups in it, lies the cause of the phenomenon.

III. *Treatment.* The treatment, therefore, of the disease will resolve itself mainly into three points. 1. Eliminate the poison. 2. Nourish the brain. 3. Subdue the congestion, when it exists. If the poison is allowed still further to accumulate, the result is death. If the brain is devoid of nutrition beyond a certain point, the result is death. If the congestion be augmented and intensified, the result also will be death; and yet the popular treatment of the present day tends to prevent the elimination of the poison, to hinder the cerebral nutrition, and to intensify the vascular congestion.

May it not, then, be asked with reason—Are the fatal cases due to the disease itself, or to the mode of treatment so generally adopted at the present time? If the delirium does depend upon the circulation through the brain of blood full of carbonaceous material, consequent upon the constant exhibition of alcohol, it seems scarcely reasonable to endeavour to attack the disease by administering a repetition of that very poison which had originally caused all the evil, with the addition of a narcotic drug, the probable *modus operandi* of which is its obstruction to the due oxygenation of the blood. This effect may be due to the combination of several causes. 1. Opium diminishes the secretion of bile. 2. It causes a tendency to a paralytic condition of the respiratory muscles. 3. It diminishes the supply of nervous agency in all parts of the body. Moreover, in death by opium, the most important appearances are turgescence of the cerebral vessels, effusion of water or of coagulable lymph, and occasionally, though rarely, extravasation of blood.

Nevertheless, the treatment of delirium tremens by alcoholic drinks and opium has been for many years nearly universal. The alcoholic preparation is generally that to which the patient is supposed to have been accustomed—thus, in Edinburgh it seems usually to be whiskey, and in London, gin or beer, or both mingled, have their adherents. In the exhibition of opium there are no limits until sleep be obtained. Dr. Jackson prescribes from ten to fifteen or even twenty grains of solid opium every two hours; and yet this treatment, though so popular, is not by any means universally efficacious. Of 403 cases, of both sexes, treated in the Royal Infirmary, Edinburgh, during eight years and a quarter, 101 died, or 25 per cent., and in the Glasgow Infirmary, 50 per cent.; and, although this number is much above the average of the London hospitals, owing probably to alcohol being administered in Scotland, in the form of whiskey, yet, even at St. George's Hospital, the number of deaths seem to be 14.6 per cent. In opposition to this we place a record of cases treated by various physicians on the eclectic or the expectant method. Thus Dr. Peddie treated upwards of eighty cases without alcohol or opiates, and he lost none. Dr. Laycock treated twenty-seven, and Dr. Dunglison, of Philadelphia, eighty-three, by the expectant method, and neither physician lost any case. Here then are 190 cases treated without alcohol and opiates, and every one of these cases recovered.*

The question of treatment is mainly the one point on which the pathology of the disease hinges. The mass of the profession consider that alcohol and opium are to be used largely and

* These figures are gathered from an article in the *Medico-Chirurgical Review*, Oct. 1859; and the *Edinburgh Medical Journal*, Oct. 1858, etc.

conjointly. The use of alcohol seems entirely to depend upon the truth of the theory, that the disease is occasioned by the withdrawal of the accustomed stimulus. Why then, if this theory be true, (which it is not), does not the administration of alcohol alone cure the disease? Why is opium necessary? The effect of opium has been already referred to; but in the cases where it does not kill, it causes sleep. After this sleep, and only after this sleep, the patient—is not cured—but recovers, and why? Surely not by means of the alcohol; because during his long sleep it has been impossible to administer any more to him. It is quite true he has recovered through the sleep; and, as the sleep was caused by the opium, the advocates of opium will doubtless give to that drug the credit of the recovery. During the sleep, the patient, in the same manner as one in acute intoxication, has been eliminating the alcohol as quickly as possible. By the skin, through the lungs, through all the tissues of the body, the carbonaceous matter has been oxydised and burnt off. Every movement of every muscle engaged in the act of respiration has done its part towards removing the toxæmic cause of the disease from the system. And when the vitiated blood is entirely deprived of the alcoholic poison, and the morbid material is, to a great extent, if not wholly, excreted by the various emunctories, then, and not till then, does the brain resume its proper functions, and, each nerve-cell receiving the fair share of healthy blood, the mental phenomena of comparison and judgment hold again their accustomed sway, and the mind acts as one harmonious whole. Such seems to be the rational explanation of recovering from delirium tremens. Thus alcohol by itself has done no good. The recovery has only taken place upon its withdrawal. It is to sleep, the drunkard's best physician, the vigilant nurse that saves him from the fatal remedies of his advisers; it is to sleep, as giving time for the gradual excretion of the poison, that the safety of the patient is due.

But is opium necessary to produce this sleep? Every observant practitioner must have felt at what a risk the present poisonous amount of this drug is administered in the treatment of this disease. And if the medical man would only be bold enough to watch the natural course of a fit of delirium tremens, he would see that sleep usually comes on, without any narcotic, within seventy-two hours from the commencement of the delirium. This being so, and there being, under suitable treatment, no danger in this postponement of sleep, why should opium be used at all? In a state of considerable congestion of brain, why incur the risk of additional congestion from opium? "The treatment without alcohol or opium," remarks Dr. Dunglison, "has restored the individual to health; not, perhaps, as rapidly as either brandy or opium, but more permanently. The term 'restoration to health,' is hardly, indeed, applicable to the change effected by the former remedy. In the total abstinence plan, however, the habit of drinking is broken in upon: and even if it should require a short time longer to restore the individual, there is the consoling reflection, that delay is not useless, and every day's privation of the wonted stimulus diminishes the feeling of necessity, and the desire for it. One evidence of the good effects of the course is, that they who are dismissed cured, rarely or never return to the wards. This is an observation that has been made at the Philadelphia Hospital; and, as it concerns paupers, it is probable that the cures are real and permanent, for were it otherwise, they would in subsequent attacks be compelled, in their destitution, to seek the wards of the same excellent charity."

As delirium tremens, putting aside the question of traumatic delirium, may be either violent, with great heat of head and vascular excitement, or quiet, busy, and even muttering, without any marked disturbance of the circulation, the requisite treatment in the early stages will vary accordingly. In the first case, some modifications of Dr. Peddie's tartar emetic treatment may sometimes be advisable. He prescribes from a quarter to half a grain in solution in every two hours, and considers its direct effect to be in reducing the vascular excitement of the brain, soothing the nervous system, and diminishing muscular power; while its more indirect action is exerted on the functions of the skin, kidneys, and intestinal canal. In Germany and America the same drug has been administered for its emetic effect, even in doses of from four to seven grains every hour. But there seems to be one difficulty connected with its use. In delirium tremens there is often a great loathing of all food, and it is upon the taking of nourishment that the recovery depends. If then you create nausea artificially by constant doses of tartar emetic, you are cutting yourself off from one of your greatest means of success, and placing an additional stumbling block in your own way. All the advantage that Dr. Peddie proposes to himself from its employment may be attained more readily, and far more gratefully to the patient, by the use of prolonged warm baths. These, combined with cold pads to the forehead, will effectually allay any vascular excitement, and in both varieties of the delirium are advisable remedies, as tending to equalise the circulation, and relieve the usually congested state of the internal organs. These baths have been, I believe, tried on the continent to an extent which it is difficult even to realise, varying from one to twenty hours. I have found a warm bath of sixty minutes most efficacious in subduing violence and excitement in one case, and in promoting a refreshing sleep. When the violence of the first variety of delirium is thus subdued, and from the very first in the second variety, tonics are advisable; it being always remembered that delirium tremens, like mania, is a disease rather of weakness than of strength, and one in which the most fearful exhaustion may be looked for as a consequence. They should be given carefully until sleep commences, and be continued for some time after the delirium has vanished. I believe that they may be the best preservatives against a recurrence of the fatal habit which has occasioned the attack, and which would, if persevered in, assuredly occasion another. And last, though not least, food is necessary, and this should be given as good soup or beef-tea. Dr. Laycock has found, and I am able to testify to the truth of his suggestion, that a basin of beef-tea the last thing at night is very conducive to sleep in these cases; and, if the patient is taking iron every four or six hours, and occasional doses of strong soup, we may wait with confidence for the coming of that restorative sleep, whose approach, if tardy, is yet sure.

One word as to straps and bandages. Under all circumstances, restraint should be imposed only on one or both of the following principles. 1. Will the patient injure others? 2. Will he injure himself?

The first question may be entirely set aside in legislating for delirium tremens. Whatsoever form the delirium takes, violence towards others may be said to be never a symptom. The presence of other people in the room with the patient may give rise to many illusions; but, however terrible their nature may be, the patient never seems to have any idea of personally attacking the people, as is so often the case in acute mania. The second question, however, demands further consideration. Will the delirious patient injure himself? and if so, are restraints necessary to prevent such injury? There is no doubt that such a patient may commit suicide in a variety of ways during the paroxysms of the delirium. I was called last year to a man who had hung himself to his bedpost during an attack. They will precipitate themselves over the banisters, or jump out of the window, with a view to escape from the horrible fiends that are clutching at them, or from the loathsome sights that terrify them. Their idea is probably not so much death, as temporary escape from their horrors; and it seldom, if ever, happens that such a patient will bruise himself against the floor, or knock his head violently against a wall, as one in acute mania would do. Why then should a person in this condition be strapped down to a bed, when the experience of the best alienist physicians has shown that such treatment in acute mania is not only unnecessary, but in a high degree injurious? It cannot be too strongly insisted on, that the disease has of itself a natural tendency towards recovery, and that the chief occurrence to be guarded against is exhaustion. This being so, the evils of straps are apparent. The resistance against them persists as long as the patient has any power at all; and this resistance will bring on, sooner or later, a dangerous and even a rapidly fatal exhaustion. All that such a patient requires is the watchfulness of an attendant and guarded windows. Beyond this, all interference with the action of his limbs is highly injurious; and the more he runs about, the sooner will such movements induce the sleep which is the chief element of his cure. When the door is shut and the windows guarded, there is little need for opposition on the attendant's part; and gentle persuasion will generally be far more efficacious than any attempt at compulsion.

So few cases of this disease have passed under my care since I have become impressed with these views of its nature, that they cannot be brought forward as proofs of the truth of my statements, but only as examples of it.

Case 1. In one case, in a middle aged man, G. G., a great drunkard, who was admitted with great strangeness of manner and tremor, with very slight erysipelas, ammonia, iron, and good food allowed a good recovery. His delirium was full of delusions, and he was restless and difficult to keep in bed. He slept on the second night, and had no stimulant or opiate. He was under observation eight days.

Case II. In a second case (W. S.), also a great drunkard, the delirium was more violent, and he was given some antimony at first. He was very restless, and the tremor became almost jactitation. On the three first nights, he slept little, but was not entirely sleepless. On the fourth, he was put on iron and a prolonged warm bath at 90° Fahr. He was in it for an hour, and walked back to bed quiet and composed, and slept well during the whole night. On the next day, the bath was repeated, more as a precaution than anything else, as the delirium was gone. He became faint in twenty minutes; and, on being taken back to bed, slept well. During my absence, he was taken down into a ward full of patients, and some of his excitement recurred. He was given large doses of iron and good food; and the same night went to bed, and slept continuously for nearly thirty-six hours, waking quiet, sensible, and relieved.

Case III. In a third case, which was complicated with albuminuria and phthisis, the patient, who had been a great drunkard, was violently delirious for three days, and full of delusions. He was treated in a similar manner with iron and soup, and the third night slept well, and awoke quiet and sensible.

Case IV. R. P., aged 37, whom I admitted for Dr. Brittan, with delirium tremens, was very violent under compulsion, but could be easily persuaded to do what was wanted. On the second night, he was given, against my orders, one grain of opium every four hours. In the morning, he had had no sleep; his pupils were much contracted; and he was noisy, restless, and tremulous. His excitement had increased. The opium was omitted, and iron and food substituted; and on the third night he slept well.

Thus this disease, its true causes being recognised, and its pathology well considered, may be met by a mode of treatment at once humane and rational; and the mortality from delirium tremens, uncomplicated with other diseases, will soon cease to play so large a part in our nosological statistics.

READING BRANCH.

TRANSACTIONS OF THE READING PATHOLOGICAL SOCIETY.: ANNUAL RETROSPECTIVE ADDRESS.

By Nathaniel Crisp, Esq., Swallowfield.

[*Read July 18th*, 1860.]

Mr. President and Gentlemen,—You will, I am sure, excuse my entering on the subject in hand at once, and not prefacing it by regrets as to my inability for performing the task or the pleasure derived from the honour conferred upon me. All this may well be left to your imaginations. I undertook to read the annual address of our society, at the request of some of my friends, and feeling that we must all take some trouble in this world, whether in the medical or any other profession: and, if the younger members amongst us shirk such a duty, by what right can the older ones be expected to have all the labour? A very brief time has been allowed me; but I have done what I could, and, with this, must be content. I shall arrange our subjects under the Circulatory, Digestive, Brain and Nervous, and Genito-urinary Systems, Obstetrical Subjects and Malignant Diseases.

I.—Circulatory System.

The cases which fall under this division of our subject demand more than a mere passing notice, bearing, as they do, on one or two important points which have, of late, been more fully investigated.

Fibrinous Deposits in the Heart. Mr. George May exhibited the heart of a man, 73 years of age, who died after an attack of dyspnœa, lasting about twenty-seven hours. Mr. May was inclined, at first, to attribute the symptoms to air in the veins; but before the man's decease altered his opinion, and diagnosed fibrinous clot in the heart; and a very unfavourable view of the case was given, the correctness of which was proved on a *post mortem* examination. The heart was found large, loaded with fat; in the auricle was a large mixed coagulum; a white one in the right ventricle; whilst in the left, was one extending across its cavity, from one columna carnea to another.

Croup: Fibrinous Deposit in the Heart. Mr. Walford gave an account of a *post mortem* examination he had made on a child one year old. The infant had died after hooping cough, followed by some bronchial disturbance, one peculiar symptom being very rapid breathing for a certain number of times, followed by a long interval of rest; with no sufficient auscultatory sounds to account for such. In this case, a white fibrinous clot was found in the right auricle and veins, the auricle looking full before opening it.

Hypodermic Injection of Aconitine: Symptoms of Poisoning. Dr. Cowan narrated some particulars of the case of a woman, into whose areolar tissue about the twenty-fourth of a grain of aconitine was injected for the relief of long continued neuralgia. This was shortly followed by an almost intolerable feeling of wanting to "fly up;" constant bilious vomiting; irritation of bladder and rectum; constriction of throat; formication, and great depression. The only thing that seemed to give relief, was brandy injected into the rectum. The neuralgic affection was only temporarily relieved. Dr. Cowan cautioned against using aconitine in this way.

Uterine Phlebitis: Formation of Fibrinous Clots. Mr. Walford read notes of the case and exhibited the uterus and uterine appendages of a woman, who had died of phlebitis. She was the mother of a large family, had been confined a month, and about this time was looking pale and ill. She complained of pain, tenderness and swelling, below Poupart's ligament; at the same time general constitutional disturbance existed. She continued in this state for six days, when increased præcordial dulness, and bellows-sound, existed over the cardiac region. No rheumatic taint or previous heart disease had existed. Rapid emaciation ensued; cough came on a day or two afterwards, and florid blood was expectorated. Nine days before death, the right arm became swollen and very painful; and on the day prior to her decease, no pulse was to be detected at the wrist, and the jugular veins were swollen like a cord. Death took place on the eighteenth day of her illness, seven weeks after her confinement. The lochia continued in a slight degree the whole time. On removing the uterus and appendages, a granular kind of spot, of about the size of a shilling, was seen on the os. The lining membrane of the uterus was vascular. Some of the uterine veins were blocked up with fibrinous clots, and this state could be traced into the body of the uterus; a coagulum existed in the right uterine vein, close to its entrance into the vena cava. Serous effusion was found in the abdominal and right pleural cavities, as well as within the pericardium. The liver was large and nutmeggy. The lungs were generally gorged with blood. The right side of the heart was filled with clotty blood, and a fibrinous clot extended from the auricle into the ventricle; and in the right ventricle was a layer of fibrine of a rose colour. The tricuspid valve was a little thickened; and one of the larger divisions of the pulmonary artery was completely blocked, as well as the jugular and subclavian veins on the right side. Mr. Walford, in his remarks on this case, drew attention to the length of time which had elapsed between labour and death, and was inclined to think that the granular appearance on the os uteri, (already referred to), was an ulcer, whence all the mischief sprang, and concluded by making some remarks on the utility of keeping the vagina well syringed in such cases. The general opinion of the meeting appeared to be against the idea that a breach of surface existed; that, if any ulceration had existed, it was not of recent date, and was healed.

Remarks on Fibrinous Deposits. The subject of fibrinous depositions in the heart, of *ante mortem* origin especially, has of late been brought more directly under our notice by Dr. Richardson's most able and interesting publications; and as a body, we are much indebted to him for so clearly explaining cases of death, which previously, to a certain extent, appeared obscure. Although, as yet, such discoveries may have done but little to lessen mortality, still, to use his own words, they "may make prognosis more accurate, may guard us against false practice, and in time, may lead to suggestions, bearing directly on curative treatment;" and doubtless, to some extent, his words have already proved true. Is it not much more satisfactory to ourselves to be able to make up our minds as to the true nature of our patients' symptoms, than to be merely certain that a fatal issue is about to ensue; when such an event has taken place, and a *post mortem* examination reveals the true cause, to be satisfied that no remedies we have used could have accelerated it, and perhaps to feel now and then justified in cherishing the hope that our efforts had at least the tendency to prolong existence, if not to lead to a still more happy result? We may not have been guilty of fancying that we had discovered a serpent in the blood, as some of our forefathers did; but I suspect that many of us have allowed the fact of the existence of cardiac clots to pass by unnoticed, and have ascribed death to more remote causes. At the same time we must not be too ready to attribute all cases to such a cause; even if the symptoms are much allied to those described as indicative of such formations. In proof of this, I may mention

a case occurring in the practice of a friend of mine. A gentleman, during a short illness of only twenty-four hours, exhibited symptoms which might have led to such a supposition. On examining the body after death, a considerable quantity of blood was found in the pericardium; no rupture of any portion of the heart or large vessels could be detected; the blood appeared to have simply oozed through the muscular structure of the ventricle. This case is, I think, as rare as interesting, and deserving of mention in connection with the present subject.

The case narrated by Mr. May, must, I presume, be referred to that class of cardiac deposits which Dr. Richardson mentions as occurring in the course of exhaustive diseases, and in feeble circulations; on the other hand, that referred to by Mr. Walford, existing in common with hooping-cough, must be placed amongst those which generally accompany diseases of an inflammatory type. Pneumonia and croup often terminate in this way: hence, in the latter disease, the operation of tracheotomy must be useless when such a combination exists, the heart being the organ more immediately at fault, than the wind-pipe. During an epidemic of hooping-cough, last year, two or three children died under my care with symptoms which would have much puzzled me except for the light Dr. Richardson has thrown on this subject. The symptoms were of the same nature as Mr. Walford observed in his case; the original disease being apparently in abeyance, with but little appreciable lung-implication. The rounded bulging chest, indicative of an emphysematous condition, was certainly very marked in one case; life in one of these cases was prolonged for a considerable time, the baby at last dying almost, if not quite suddenly. In connexion with this part of our subject, I may refer to one or two more cases which have very recently fallen under my notice. An old lady, who for years had suffered from an exhaustive painful disease, was suddenly seized with well marked symptoms of fibrinous deposit in the right side of the heart, and died on the third day. A gentleman whom I had been attending for some months, for confirmed phthisis, after more than ordinary exertion, was suddenly seized with most distressing pain and oppression about the cardiac region. His distress when the pain occurred, which it did at uncertain intervals, was excessive; his face, bathed in perspiration, presented a most anxious look; his mental faculties at the same time were somewhat disturbed, his thoughts wandering on the most unpleasant and frightful subjects. His feelings at these times he stated to be like those experienced in most severe nightmare; comparative ease would succeed, followed by sleep of short duration, from which he would awake on a recurrence of the cardiac distress. The heart, at times, would beat regularly, and with tolerable power; at others, only a confused, feeble, fluttering jumble existed. I would also mention that, for a considerable period previously, he would suffer at times from transient intense dyspnœa, somewhat resembling that accompanying angina pectoris, and I had warned his wife that death might ensue suddenly. A *post mortem* examination revealed considerable advanced tubercular deposit in both lungs. The right side of the heart looked unusually full, and, on opening it, it was found to contain a considerable quantity of dark clotty blood, and also a firm pale fibrinous clot of considerable size, which extended for several inches into the pulmonary arteries; one portion, where it had bifurcated, was almost a fac-simile of that described by an ancient author as a serpent in the blood. The part corresponding to the "anal orifice" was very distinct, and admitted a probe for some distance. Death, in this case, took place about thirty hours after the occurrence of the symptoms described.

One more case lately attended by me is interesting enough for brief notice. A woman in comfortable circumstances, but in reduced health, the subject of rheumatic fever ten or eleven years since, after suffering for some time with cardiac disturbance, due apparently to valvular disease of the right side of the heart, had been feeling more than usually unwell for a few hours, when she became suddenly insensible; and on her recovering after a short time, paralysis of the left side of the body was observed. Most urgent dyspnœa existed, and intense pain in the right arm and thoracic region. The heart was beating so rapidly, that the pulse at the left wrist could hardly be counted; on the right side, none could be felt, all pulsation ceasing below the upper third of the brachial artery. After a few hours, some relief was obtained; but for days her death appeared certain. Life was, however, prolonged for nearly six months, the same symptoms more or less still existing. No return of pulse in the right arm could ever be detected; the suffering was extreme; dyspnœa, accompanied with extreme faintness, was of very frequent occurrence; no rest could be obtained, except in a sitting posture; extreme œdema of the left arm and leg rapidly ensued; and very shortly afterwards, the same condition was observed in the right leg, and no arterial pulsation could be detected lower than the femoral triangle. Two months before her decease, the right leg and thigh became gangrenous; and, about three weeks before death, several fingers of the right hand were similarly affected. She died, I may say, by inches, after nearly six months of most intense suffering. All remedies appeared alike useless. Ascites from nearly the first was extreme. The urine was albuminous. The lungs were much engorged; the expectoration was tinged, with blood often occurring. Slight relief was obtained for a day or two from paracentesis abdominis. The surface of the body was generally cold, and of a dull, somewhat livid aspect. At times, the heart-sounds were one confused fluttering jumble; at other times, a distinct systolic *bruit* was to be heard. No convulsion occurred at any time; and no coma existed before death.

In this case, one of the most distressing that ever came under my notice, the rheumatic disease, doubtless, was the original cause of all the mischief. Excess of fibrine, we know, exists in this affection; and though, unfortunately, I could not obtain a *post mortem* examination, I should think that the right side of the heart was affected at the time of the first rheumatic attack; and that, the rheumatic taint still existing, a clot was deposited in the left side of the heart, from which portions were carried into the cerebral circulation, and into the right brachial and right femoral arteries, blocking them up, and leading to the various symptoms narrated; the original diseased condition of the right heart also playing its part.

Mr. Walford's case of uterine phlebitis, resulting in the formation of plugs in so many arterial and venous trunks, no doubt sprang originally from an inflamed condition of the uterine veins, allied in nature to erysipelas, spreading thence along the venous system to the central organ of circulation. There seems to be a peculiar liability for uterine phlebitis to be followed by coagula in the heart. The whole blood is poisoned; its poisoned condition favours the separation of fibrine, and renders this disease peculiarly formidable. The granular spot seen on the anterior lips of the os uteri involved the question whether an ulcer existed, through which deleterious secretions were absorbed, resulting in phlebitis. I could not see any breach of surface; and, considering the state of the lining membrane of the uterus, I see no reason for thinking but that mischief commenced in the veins.

Remarks on Subcutaneous Injection. The hypodermic action of medicines is brought under our notice by the case in which severe constitutional disturbance followed the injection of a solution of aconitine; in fact, poisoning by one of the most deadly drugs existed. It seems pretty well proved that any effect brought about by the use of remedies in this way occurs alike whether the operation is performed in close proximity to a painful part, or at a distance; and therefore I refer to this case under the present division of our subject. The treatment of disease by injecting solutions of drugs into the areolar tissue has of late become a somewhat fashionable method, and certainly with sufficiently beneficial results to justify a more extended trial, notwithstanding the occasional occurrence of alarming results. Some forms of disease are peculiarly favourable for this mode of treatment—mania, delirium tremens, hydrophobia, tetanus, and such like. Who of us has not experienced the difficulty in persuading those labouring under the first two of these maladies to take medicine? All our cunning is often of no avail; and force is at times obliged to be used, this of itself tending to aggravate the disorder. How much better if we can calm agitation, or induce sleep, by so simple an operation. Once performed, there is no fear of the remedy being thrown out of the system; there it is, and it quickly sets about producing its effects, far more rapidly, apparently, than if taken into the stomach. This is another argument in favour of subcutaneous injection in diseases where every hour, if not minute, is of consequence. Hitherto, sedatives or narcotics have been chiefly used in this way. Time will prove whether drugs of other kinds may not be advantageously so employed.

II.—Digestive System.

Use of Acids and Alkalies. Dr. Wells read a paper (since published) on the use of acids and alkalies in indigestion. Amongst many valuable remarks he made, I would briefly refer to those on idiosyncrasy; some people being unable to take any alkalies; in others, this peculiarity holding good as regards certain alkalies only, such as magnesia, bicarbonate of soda, and

potash in any form; whilst another class are unable to take acids, this generally arising from a gouty taint. Pain—another point to which he drew attention—when existing about the right extremity of the stomach, generally demands the use of acids, probably because the liver is implicated. In some cases, tenderness exists over the hepatic region, although the patient is unaware of it. Where discomfort is referred to the cardiac end of the stomach, alkalies are the remedies. Of these, carbonate of ammonia is the one to resort to where no tenderness accompanies the pain, often the case where mental worry and anxiety exist. If tenderness is present with pain more over the pit of the stomach, calcined or carbonate of magnesia will be beneficial; the former, if the bowels are costive; the latter, if the contrary condition is present. Again, in reference to the state of the bowels themselves, the author remarks that an irritable state indicates an alkaline course of treatment; the opposite, an acid. When the irritation is great and the gastric derangement severe, a tubercular taint is to be suspected, or a tendency to free drinking. Lastly, the urine must not be neglected. If oxalates exist, we must use nitric or nitro-muriatic acid; the lithates may require either one or the other of these; the earthy salts, more especially the triple phosphates, are likely to need acids. Many cases were narrated in support of these views. I am sorry that Dr. Wells did not somewhat enlarge his really valuable and interesting paper with some remarks on the gastric symptoms induced by ulcer of the stomach, a complaint of somewhat frequent occurrence, and requiring special treatment; but, at the same time, to a certain extent ambiguous in its symptoms, and being more likely, if not detected, to insidiously gain ground, and perhaps ultimately to terminate suddenly, than any other gastric disorder, demands careful attention, in order not to mistake its earlier symptoms for those simply due to some inorganic error in the digestive functions; taken in time, comparatively easy of cure; if allowed to advance, equally fatal.

Biliary Calculus. Mr. Breach exhibited thirty-six biliary calculi, passed by a female eighty-three years of age, after slight pain and sickness; the largest of them weighed four drachms two scruples. Constipation had previously existed for about a week, and was then followed by diarrhœa. One can hardly fancy that a body of such a size as just mentioned could escape through the narrow neck of the gall-bladder; but many larger still have done so. According to Thudichum, casts of biliary ducts form, generally at least, the nucleus of gall-stones, the presence of cholesterine being dependent on the decomposition of some of the constituents of the bile, and its consequent precipitation from its solution. Many valuable ideas may be gathered from a paper written by him on this subject.

[*To be continued.*]

Reviews and Notices.

On the Climate of Worthing: its Remedial Influence in Disease, especially of the Lungs. By Walter Goodyer Barker, M.B.Lond., Medical Officer to the Worthing Dispensary; and Member of the British Meteorological Society. Pp. 72. London: Churchill. 1860.

Meteorology is a science which is now much better appreciated than formerly. Only a few years ago it was regarded merely as a lumbering and useless record of observations, which could by no possibility be pressed into any service whatever; and there were but few observers. Now it is looked upon most hopefully in a variety of ways; and especially as regards the changes and varieties of climate, its accumulated records are found to be very useful, and its observers are increasingly numerous.

That weather has much to do with public health is an old fact, and has long been known; but the Registrar-General's last quarterly return records the grandest sanitary experiment ever known since the observations of the meteorologist, and the statistics of mortality have been placed side by side. The year 1860 will be a rich harvest in which the medico-meteorologist may glean much useful information.

Under the careful superintendence of Mr. Glaisher, of Greenwich, accurate observations, with trustworthy instruments, (and this is a point of essential importance) have been for some years forwarded for publication in the Registrar-General's *Quarterly Returns*. These observations have been recorded in a goodly number of places between Northumberland in the north, and Guernsey in the south. To this circumstance, and to the fact that some years ago, the British Meteorological Society was founded also by Mr. Glaisher, a society which is steadily doing a great amount of good sterling work, we may mainly attribute the rapid strides, which have been made of late years by meteorology as a science.

For some years past, the meteorology of Worthing has been contributed to the Registrar-General's reports by Dr. Barker, and the results of ten years observation are embodied in the work now under notice.

Whether we regard the fluctuations of temperature, the summer-heat or the winter cold, the mean annual temperature, or the daily ranges, or whether we regard the condition of the atmosphere with regard to humidity, the author clearly demonstrates that Worthing will bear comparison with the most favoured place of resort on the South Coast, and is greatly superior to inland and northern places. It appears, too, that the number of rainy days and the quantity of rain that falls, are less in Worthing than at Ventnor and in the West of England, so that invalids are enabled to take exercise more frequently in the open air.

Perhaps the most valuable and original part of the work is that which treats of the peculiar atmospheric principle which was discovered by Schönbein; we allude to ozone. The observations on atmospheric ozone at Worthing, were made by means of Dr. Moffat's papers, which were shown by Dr. Herbert Barker of Bedford (see Paper in the *Philosophical Magazine* for 1856) to be more sensitive and trustworthy than those of Schönbein. Our author has satisfactorily established the fact that the atmosphere is invariably more charged with ozone with the winds from off the ocean, than from inland directions; and he shows that "whereas at Bedford, in the interior of England, the number of days on which ozone was present in 1859 was 91 only, and the average daily amount throughout the year was 0.9; at Worthing the number of days on which ozone was present was 305, and the daily average was 4.4." It will probably turn out to be a great fact, that the comparative salubrity of our favoured sea-side resorts is, after all, mainly due to the greater abundance of ozone contained in the air of those places; but the subject is still *sub judice*.

With regard to the *chemical* nature of ozone, Dr. Barker has instituted a series of ingenious and well-conducted experiments, which tend to show that it is "free chlorine developed by the decomposition of the chloride of sodium." (Pp. 39 *et seq.*) Without pledging ourselves fully to accept the conclusions to which these experiments tend, we would add that the experiments claim the most searching and rigid investigation. The author himself, indeed, writes very cautiously on the subject, and modestly adds, "it appears necessary that the experiments should be extended over a much longer period in order to prove" whether ozone is simply free chlorine or not (page 42). If it should be proved after mature and complete investigation, that chlorine is really the chemical agent which produces the effects which have been attributed to ozone, Dr. Barker will reap the rich reward of having performed an active part in determining the nature of this remarkable atmospheric principle.

Sufficient has been advanced to show that this work is a valuable contribution to climatic literature, and we most heartily recommend our readers carefully to study it for themselves. There can be no doubt that Worthing is an excellent place of resort for invalids; and the town will be greatly indebted to so trustworthy and painstaking an observer as the author, for having brought its great local advantages before the British public.

The Modern Treatment of Syphilitic Diseases, both Primary and Secondary; comprising the Treatment of Constitutional and Confirmed Syphilis by a Safe and Successful Method; with numerous Cases, Formulæ, and Clinical Observations. By Langston Parker, F.R.C.S., late Surgeon and now Honorary Surgeon to the Queen's Hospital, Birmingham, etc. Fourth Edition. Entirely rewritten, with numerous Additions. Pp. 403. London: John Churchill. 1860.

Since the appearance, in 1854, of the third edition of Mr. Parker's book, the information which he has been gaining, both from his extensive experience and from the study of the works of other syphilographers, has enabled him to increase the work by nearly sixty pages. In the second part, which treats of Constitutional or Secondary Syphilis, will be found, among the additions, chapters on Syphilitic Diseases of the Nasal Fossæ, Lacrymal Apparatus, Ear, Uterus, and Muscles and Tendons.

On the subject of Secondary Uterine Syphilis, Mr. Parker arrives at the following conclusions:—

"1. The uterus is capable of being primarily inoculated with syphilis, in the same way that we observe similar occurrences take place on the penis and elsewhere. Such primary sores may be situated on the external portions of the neck of the uterus, within the os or canal of the cervix, or probably still more deeply; these occurrences, as far as they have been at present observed, are rare; but, as structure in other parts exerts a very powerful modifying influence on the appearance of a chancre, these primary sores on the uterus may be more frequent than has hitherto been imagined.

"II. Like other parts, as the throat, skin, and elsewhere, the uterus is liable to be attacked with the symptoms of secondary or constitutional syphilis, which are distinct from the primary disease; these symptoms are found in more than half of the patients who suffer from confirmed lues; and the symptoms which characterise them are pretty uniform, consisting in discharges from the canal of the cervix, general or partial enlargement of the neck and lips of the uterus, with congestion and inflammation, and superficial ulceration of these parts.

"III. These symptoms are most likely syphilitic, since they are found in the cases of those who labour from confirmed syphilis; but are not found in anything like an equal degree in persons labouring under diseases which are not syphilitic.

"IV. The symptoms of uterine syphilis will remain for years after the disappearance of the other symptoms; and this condition of the uterus is the source of infection to the fœtus, even when the female is pregnant by a man who has never had syphilis.

"V. The examination of a female labouring under confirmed lues should never be considered as complete till the uterine organs have been thoroughly inspected; and, in reference to treatment, it may be asserted—

"VI. No treatment is likely to be successful which does not combine topical medication of the uterus with any constitutional remedies that may be indicated or thought necessary." (Pp. 269, 270.)

The opinions of Mr. Parker on this subject have received confirmation from the researches of M. Bernutz at the Lourcine Hospital. M. Bernutz has arrived at the following conclusions.

"The uterus is the seat of syphilitic symptoms of varied character, which may be legitimately classed under three heads:—

"1. Primary diseases, comprising chancres and chancrous balanitis; all inoculable.

"2. Secondary diseases, comprehending the following alterations seated on the mucous membrane of the neck; these are red patches, vegetations, erosions, and various forms of the syphilida. They are not inoculable, although they may be contagious.

"3. The tertiary symptoms comprise tubercles and gummata." (P. 270.)

On the subject of Syphilisation, Mr. Parker is silent. He says that he has had no experience of it, and that, "if all be true that is said of it, it is too forbidding a practice ever to be employed as a therapeutic agent in this country."

Mr. Parker's present edition fully sustains the value of the work as a sound practical guide. It is founded on the observation of twelve thousand cases both in hospital and in private practice, during a period of twenty-five years. No surgeon can read the book without gaining instruction therefrom.

LETTERS AND COMMUNICATIONS.

Letters or communications for the Journal should be addressed to Dr. Wynter, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the Journal, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

British Medical Journal.

SATURDAY, NOVEMBER 24th, 1860.

QUACK MEDICINES.

It is as well from time to time to look around us, and note the various methods by which our profession is robbed of its just pecuniary rewards by unprincipled interlopers, and by traitors to our cause among our own ranks. It is a very old complaint, that our profession is overstocked; and that the health, or rather want of health, of the public, does not justify the rush towards our ranks of so many middle class young men. Is it really the truth, however, that the reapers are too many for the harvest? We know not how rightly to answer the question; but this we know, that whilst many of us are standing idle, we are compelled to see outsiders, men of no education or character, living in luxury, and fattening in our own inclosures. We cannot take up a country paper without seeing its columns defiled by filthy advertisements of Jew quacks, who live by defaming regularly educated medical men. We cannot enter a chemist's shop without seeing the counter lined with patent medicines. In surgery, we are competed with by the most ignorant pretenders, who affect to treat with contempt those who bring to their professional duties the training and practice of years. Every village has its bone-setter; rubbers are beginning to infest the watering-places resorted to by valetudinarians; hydropathy and homœopathy sweep away whole sections of the community from our care; and Holloway and Morison physic their hundreds of thousands; and yet we are told that the market is overstocked with medical men!

So far from this being the case, it seems to us that the community cannot get too much doctoring; it is capable of absorbing any amount of deleterious compounds; and the quack has only to suit his nostrum to the market, as the angler suits his bait to the gudgeon, to be sure of an ample reward for his knavery. If the money that is spent in quack medi-

cines were only distributed among the different members of our profession, there would be no more complaint of an overstocked medical market. But it will be urged that there will always be a certain section of the public given to charlatanry; and that, in commercial parlance, we should write off a certain percentage of loss to the profession as inevitable. Granted that we must do so, it remains to be shown to what degree the evil is to be tolerated. Is the country practitioner justified in taking in a local paper that weekly disseminates the most disgusting advertisements of the various Jew gangs who fatten upon the youth and purity of the country? Has he a right to stand by and see a trap set to ensnare possibly the contamination of his own son or daughter? Should the man who would directly inform against a negligent person for keeping a festering dung-heap before his door, that was detrimental to the public health, quietly day by day receive into his house a paper that contains an amount of moral filth ten times more pestiferous to the community? We feel that but one reply can be made to this question; and we fearlessly assert that every man who fails to protest against this violation of public health and decency, sins against the social truth, to say nothing of his own interest. If every respectable man were to refuse to take in newspapers which gave insertion to these scandals of the age, their proprietors would speedily exclude them; and, publicity being denied to their wares, the quacks themselves would soon disappear.

With regard, again, to the bone-setters and rubbers, some of whom are robbing the profession of such large sums of money, may we not ask how it is that we hear so little of their doings except from the gullible public themselves? We have been told that some of these persons are so influential that medical men either dare not, or do not wish to denounce them. What treason is this? If legitimate medicine cannot speak out when its own duties are concerned, what right has it to set up the doleful cry of being "overstocked?" If individuals do not like to compromise themselves, the press has not lost its voice; and, as far as we are concerned, we will not hesitate to give the fullest publicity to the doings of any of these gentlemen, provided we are supplied with well authenticated facts respecting them. Truly, as matters stand, the profession strains at gnats and swallows camels. A qualified man at Pinner is proceeded against by the Medical Council merely because he uses the title of Dr. obtained at the Erlangen University, without having registered the same; yet the Medical Council deliberately closes its eyes to the doings of the hosts of quacks who are robbing the profession on every hand! But there are gentlemen guilty of unprofessional acts within our ranks, who can well be dealt with by the public voice. We allude to those persons who have descended to make a profit from secret remedies. There are one or two notorious instances of this kind of treason against the well established humane axioms of our profession, which should not escape the censure of a single medico-ethical society in the kingdom. If members of our own body are allowed to reap large fortunes by secret medicines, how can we pretend to turn up our noses at Morison or Holloway? Can it be said for one moment that Dr. Collis Brown, in this particular, stands on higher ground than the proprietor of Dr. Locock's pulmonic wafers? Let us beware in time, lest by receiving with favour the popular nostrum of our own profession, we give a warranty to the cause of quack medicines, which form such a standing insult to our craft in every druggist's shop in the kingdom.

THE WEEK.

We are given to understand that the visit of the Empress of the French to Scotland is not altogether for the purpose of profiting by the invigorating breezes of the Highlands, but also for the purpose of consulting Dr. Simpson. The Empress has for some time been in a condition of health which has prevented her strengthening the dynastic chances of her family, which are at present represented only by the Prince Imperial.

The Second Annual Meeting of the General Medical Association of France was held in Paris on the 28th and 29th of October. The Chair was occupied by the President, M. Rayer, who delivered an address. After some introductory remarks, he alluded to the loss which the Society had sustained in the death of their legal officer, M. Bethmont, and to the appointment, in his place, of M. Paul Andral, son of the distinguished pathologist. Speaking of the influence of the Association on professional education, he said:—

"This Association, by an indirect influence, will support medical instruction. It is this high and secure intellectual position which allows us to combat charlatanism, that sad and disgraceful parasite of medicine, without fear of our conduct being attributed to mere interested motives. Without doubt, professional interests are worthy of our solicitude; and our Association owns as its motive and end, the care which they legitimately inspire. But, so intimate is the connection with the public interest, that of the two parties, society and the medical body, it is to society that our watchfulness is most important. What are pecuniary losses on the one side, compared on the other with irreparable loss of health and life? And, in a general point of view, our trouble at finding ourselves misunderstood is far inferior to that which we experience when we see persons of the higher classes, who ought to possess more reason and intelligence, seizing on the grossest baits presented by cupidity, ignorance, and false science. Yes! when the medical body steps in between society and charlatanism, it performs a duty towards society rather than exercises a right for its own profit. If general education ever renders the people sufficiently familiar with positive ideas to drive from the minds of men the chimeras of a system which acts through the wonder of secresy, then charlatanism will be reduced to a minimum of mischief which will be beneath our notice. Until then, it is by a honest and sincere desire of preventing painful mistakes, by a just pride of knowledge and of civilisation, that the medical body can unmask false medicine; it will be, both before itself and before the public, the stronger against false, as it shall increase in true science."

The Association consists of fifty-three local societies, containing altogether 3,108 members. Several donations and legacies were announced as having been received during the year; among which were, one of 1,000 *francs* from the Emperor; one of 5,000 *francs* from M. Rayer; a legacy of 5,000 *francs* from the late M. Bethmont, etc.

Association Intelligence.

BRANCH MEETING TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
BATH AND BRISTOL. [Quarterly Meeting.]	York House, Bath.	Thurs., Nov. 29th, 7 P.M.

Reports of Societies.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, NOVEMBER 5TH, 1860.

B. G. BABINGTON, M.D., F.R.S., President, in the Chair.

NOTICES OF THE APPEARANCE OF SYPHILIS IN SCOTLAND IN THE LAST YEARS OF THE FIFTEENTH CENTURY.

BY J. Y. SIMPSON, M.D.

[*Read by* DR. MCWILLIAM.]

DR. SIMPSON'S paper commenced by stating, that medical men are for the most part agreed upon two points in relation to the history of syphilis; viz., that it is a species of disease which was unknown to the Greek, Roman, and Arabian physicians; and that it first began to prevail in Europe in the latter years of the fifteenth century.

The non-existence of syphilis in ancient times, and the circumstance of its original appearance in Europe about the date alluded to, are opinions strongly borne out by two sets of facts. For, *first*, no definite account of this marked and extraordinary species of disease is to be found in the writings of any one of the ancient Greek or Roman physicians, historians, or poets; and, *secondly*, of the numerous authors whose works exist in the learned collections of Linsinus, Astruc, and Girtanner, and who saw and described the malady in the later years of the fifteenth or commencement of the sixteenth century, almost all comment upon it as (to use their own general expressions) "Morbus Novus", "Morbus Ignotus", etc., etc. It would not, however, said Dr. Simpson, affect our present object were we to consider the disease, as it appeared about the period in question, not to have been a new malady previously totally unknown, but merely, as some have thought, an aggravated form of a disease formerly existing in so mild a form as not to have attracted general observation. Dr. Simpson considered it unnecessary to his case to investigate the question of the probable source of the disease, and the exact date at which syphilis first burst forth in Europe. In relation to the object he had in view, it mattered not whether it sprung up spontaneously and endemically in Spain, Italy, or France, at the era in question, or was imported from Africa, as Gruner, Infessura, and others allege; or from Hispaniola, as Astruc, Girtanner, Wetherhead, and a host of authorities have stoutly, and not unsuccessfully, maintained. Nor was it necessary to discuss whether it first showed itself in 1493, as Sanchez and Hensler consider that they have proved; or in 1492, as Fulgosi asserts; or as early even as the month of October 1483, as Peter Pinctor, in 1500, proved astrologically to his own complete satisfaction that it ought at least to have done, inasmuch as that was, as he has sagaciously shown, the precise and exact date of the conjunction of Venus with Jupiter, Mars, and Mercury, and the conjunction of these or other stars in the heavens above was, as he and many of the astrological physicians of his time believed, the origin of this new scourge on the earth below. Dr. Simpson started from the general proposition, that the disease was in 1494 and 1495 first distinctly recognised in Italy during the invasion of that country by the victorious army of Charles the Eighth of France. The malady is generally allowed to have earliest broken out in a marked degree at Naples, about the time that Charles took possession of that city in the spring of 1495, or nearly two years after Columbus's return from his first voyage to Hispaniola. Charles set out again for France in May 1495; and the malady seems to have been both diffused by his infected troops along the line of their northward march, and afterwards carried to their respective houses by his own French soldiers, as well as by his various Swiss, German, and Flemish auxiliaries. This new malady was not long in reaching Scotland, as attested by edicts issued in 1497 by the town-council of Aberdeen, with reference to the appearance of the disease there; and by the Privy-Council in Scotland, in relation to its prevalence in Edinburgh. By the Aberdeen edict it was "stated and ordanit, that all licht weman be chargit and ordanit to decist fra thar vices and syne of venerie;" and a few years later, "that diligent inquisition be taken of all infect personis with this strange *seikness of Nappeles*."

The Edinburgh edict was six months later in date than the first of those issued by the Aberdeen authorities. It was, as already stated, drawn up by the King's Privy Council, and proceeds thus: "It is our Soverane Lordis will, and the command of the Lordis of the Counseill, sent to the Prouest and Baillies within this Burgh, that this proclamation follow and be put into execution for the eschewing of the greit apperand danger of the infection of his Lieges fra a contagious sikness callit the Grandgore", etc. "That is to say, we charge straitlie and command that all maner of personis, being within the Fredome of this Burgh, quhilk are infectit or has been infectit, and incur'd of this said contagious Plage callit the Grandgore, devoyd, red, and pass furth of this Town and compair upon the sandis of Leith, at ten houris before None, and thair sall have and synd Botis reddie in the Havin ordanit to thame be the officary of this Burgh reddille furneist with Victuales, to have thame to the *Inch*, and thare to remain quhill God provyde for thair Health." The edict further ordains, that those who take upon them the cure of the disease are also to pass with "infectit" to the *Inch*; and disobedience of the edict on the part of the doctor or his patient, rendered both alike amenable to the penalty of being "brynt on the Cheik with the marking Irne, that they may be Kennit in time to Come."

At the time of the first appearance of syphilis in the northern realm, the throne of Scotland was occupied by James IV, a prince who was a great patron of the arts and sciences of his time. At different times we find him experimenting in chemistry, in physiology, and in medicine. His daily-expense books contain many entries of purchases for instruments and materials to make the unmakeable "Quinta Essentia", or philosopher's stone; and he had laboratories for these investigations both at Edinburgh and Stirling. King James practised the art of leech-craft, as well as experimented in alchemy and physiology. "He was," says Lindsay of Pitscottie, "well learned in the airt of medicine, and was ane singular guid chirurgiane; and thair was none of that profession, if they had any dangeris cure in hand, bot would have craved his adwyse." The High-Treasurer's account shows that the king had a right royal way in one important respect with his patients, that by it he might have secured a large consulting and private practice even in these modern days of high rivalry and competition; for he paid his patients, instead of being paid by them. Thus, in his daily expense book, under the date of April 14th, 1491, is the following entry:—"Item to Dominico, to gif ye king leve to lat him blud," 18 shillings Scotch; and a short time afterwards, "Item to Kynnard ye barbour, for twa teith draun furtht of his hed be ye king, xviii shillings." He seems also to have tried his hand at ocular surgery; but the following entry rather ominously hints that he was not a successful operator for cataract:—"Item giffin to ye blind wif yat had her ein schorne, xviii shillings." A prince imbued with such medical and surgical propensities would naturally feel deeply interested in the first appearance within his realm of such a malady as syphilis; and in his treasurer's accounts there are several entries indicating that the king had bestowed moneys upon various persons affected with this disease. Thus there are several entries between September 1497 and April 1498, for sums awarded to persons of both sexes afflicted with the "grunt gore".

There are various sarcastic allusions to the disease by the Scottish poets of these early days, amply testifying to the fact of its rapid diffusion both among the *attachés* of the court (who were then the most common objects of poetical satire) and among the community at large. William Dunbar, the flower of the old Scottish poets, was at the period of the first introduction of syphilis, in 1497, in the prime of manhood; and in two or three years afterwards, viz., in 1500, was attached to the King and Court of James IV by an annual state pension. In a number of verses addressed to his patroness, the Queen—verses which strongly appear to us at the present day, with our existing standards of taste, as most unseemly and indecent—he commemorates the communication of the new disease, under the name of the "pockis" or the "Spanyie pockis", to the Queen's men during the jollities of Fastern's E'en and the reign of the Abbot of Unreason; and he closes his stanzas with an earnest advice to all to

"Bewar with that perillous play
That men callis bibbing of the pockis."

The after effects and consequences of the disease he describes thus:—

"Sum, that war ryatous as rammis,
Ar now maad tame like ony lammis,
And sittin doune lyke scarye crockis,
And has forsakin all sic gammis
As men ca' libbing of the pockis."

Gumbecht and Brandt, who wrote on syphilis in 1496, when speaking of the diffusion of the disease at that early date over Europe, both allude in very general terms to its having invaded France, Germany, etc., and reached as far as "Brittain". But the earliest specific notice of syphilis in England, which Dr. Simpson remembered to have met with, is in 1502; and in this notice, the malady is spoken of under the name of "French pox". This notice is contained in the interesting Privy Purse Expense Book of Elizabeth of York, the Queen of King Henry VII, edited by Sir Harris Nicolas. This charitable lady seems, from the records in question, to have had several *protégées* under her immediate care and keeping. Among these *protégées* is entered John Pertriche, "one of the sonnes of mad Beale". There are various articles of expenditure successively noted in the Queen's private expense book as lavished upon this John Pertriche during the currency of 1502, as "monies for his dyetts", for "buying shirts", "shoyn", "hosyn", etc. There are twenty pence expended for his "learnying"; and the last two items in the account record attempts of two different and rather opposite kinds to amend the mental and moral deficiencies of this hopeful youth. The two ultimate items are "For a prymer and saulter book (to John), xx pence;" and, "Paid to a surgeon which healed him of the French pox, xx shillings."

In the second division of his paper, Dr. Simpson observed that the preceding notices, however brief and imperfect, relative to the first introduction and dissemination of syphilis in this country, were not simply matters calculated to gratify mere antiquarian curiosity. They appeared to him to be capable of a much higher application; for they offered so many elements tending to illustrate the general history of the first appearance of syphilis in Europe, and justify us in drawing from the data they afford several not uninteresting nor unimportant corollaries in regard to the first origin and mode of propagation of the disease, and the distinction of it from other affections with which it has been confounded.

I. These notices tend to corroborate the pathological opinion that syphilis was a species of disease new to Europe when it first excited the attention of physicians and historians in the last years of the fifteenth century. If syphilis was new in Britain in the end of the fifteenth century, this shews—

II. That it is a species of disease distinct and different alike—1, from gonorrhœa, and 2, from Greek leprosy (with both of which maladies it has occasionally been confounded); for both these maladies existed and were abundantly recognised in this country long before the era of the introduction of syphilis.

III. As regards the mode or modes in which the disease was supposed to be so speedily propagated at its first appearance in Europe, the Aberdeen and Edinburgh records are both interesting, though they offer very opposite testimony on this point.

For some time after syphilis broke out, it was believed, both by the medical and non-medical public, that the disease was communicable, and constantly communicated from the infected to the healthy, by the employment of the clothes, vessels, baths, etc., used by those already suffering from it, and by the slightest corporeal contact, or even by breathing the same air with them. One of the gravest articles of guilt brought against Cardinal Wolsey, when he was arraigned by the House of Lords in 1529, consisted in the allegation that, to quote the *ipissima verba* of the indictment, as laid before Henry VIII, "Whereas your Grace is our sovereign lord and head, in whom standeth all the surety and wealth of this realm, the same lord cardinal, knowing himself to have the foul and contagious disease of the great pox broken out upon him in divers places of his body, came daily to your Grace, rowning in your ear, and blowing upon your most noble Grace with his perilous and infective breath, to the marvellous danger of your Highness, if God of his infinite goodness had not better provided for your Highness," etc.

For several years after the first outburst of the disease, sexual intercourse with the infected does not seem to have been suspected by any one as the source and means by which the syphilitic contagion was propagated; nor was the primary affection of the sexual organs generally noticed by the authors of these times as a constant or marked symptom. They were acquainted with and described only the secondary symptoms of the malady—the hideous eruptions on the skin, the ulcers of the throat, the exostoses and nocturnal pains in the bones; while they mostly all pass over the genital organs, as if they remained unaffected. So much was this the case, that we find Montagnana in 1498 recommending, not as a means of infection, but as a means of cure, *moderate coition* (*coitus temperatus*). Montagnana speaks of having recommended the treatment in question (*coitus temperatus*) to a sick bishop under his care; and perhaps we may venture to guess that such a prescription would neither be the most disagreeable medicine in the world to one who had taken upon him the vows of St. Benedict, nor the one least likely to extend Montagnana's practice among the same class of patients.

IV. The early notices (continued Dr. Simpson) adduced of the appearance of syphilis in Scotland are curious, as proofs of the rapidity with which the disease travelled, at its first outbreak, over the kingdoms of Europe. The new malady was, as has already been stated, first distinctly recognised during the period that Charles VIII of France occupied the city of Naples, or rather, immediately after he left that place. That Naples was the locality in which the contagion first spread so widely and rapidly as to be considered almost the source of the new epidemic; and further, that this happened at the precise date of the visit of the French army,—seems to be shown by the very designations respectively conferred at the time upon the new affection by the Neapolitans and French; for, while the French, as it is well known, designated it at its first commencement the Neapolitan disease, the Neapolitans, on the other hand, termed it the French disease. The army of Charles, in their march through Italy, arrived at Rome on December 4th, 1494, and entered Naples on February 21st, 1495; and, after remaining there three months, they evacuated the city on May 28th. On the 24th of the same month, the Spanish General Cordova landed in Sicily; on July 5th, the battle of Fuornove was fought; and next day King Ferdinand returned to Naples; but the last remant of the French army did not reach France till the end of the following year. The Aberdeen edict, however, was issued within less than two years after Charles commenced his march homeward; or, to state the matter otherwise, Columbus arrived at Palos, in Andalusia, after his first voyage to the New World, on March 15th, 1493; and from his second voyage, in April 1496. The edict of the Aberdeen aldermen and council was passed on April 23rd, 1497, or exactly four years and thirty-eight days from the date of Columbus's first return to Europe; while the famous edict of the Parisian authorities was issued on March 6th, 1497, only forty-eight days before that of Aberdeen.

The rapidity with which the disease spread from the south of Europe to its western confines has been often employed as an argument to shew that the contagion of syphilis was propagated at its first introduction by laws different from those which now regulate its communication. In other words, it has often been alleged that the disease was then spread from kingdom to kingdom, and from city to city, by epidemic influence and by general contagion, and not merely by the slower medium of impure sexual connexion. When we look to the then existing state of society, both on the Continent and in our own country—to the loose manners and licentious lives, we shall probably find a sufficient solution of the at first sight difficult problem of the rapid dissemination of the new malady. The morals of the general mass of the people are ever found to be regulated by the example set before them by the aristocracy and clergy. At the date of the introduction of syphilis into Europe, the notorious habits of the two latter ruling bodies were assuredly such as to expedite the diffusion of the new scourge that had sprung up among them; and hence, at its first outbreak, we find the disease forcing itself upon several of the highest members of the continental courts and church. The Emperor Charles V, Pope Alexander VI, kings and cardinals, princes and bishops, peers and priests, are recorded amongst its victims. As far as regarded the predisposing habits and influence of the clergy, at least, matters were not better in Britain than on the Continent, when the disease reached this country. There was openly inscribed over the door of Cardinal Wolsey's palace, "Domus Meretricium Domini Cardinalis". The manners of the inferior dignitaries of the church offered only too close an imitation of those of its primate. The commissioners appointed by Henry VIII to visit the monasteries of England have recorded a sad and probably only a too true picture of the moral degeneracy of the great mass of the clergy of the time. With some few honourable and cheering exceptions, they found the occupants of most of the monasteries "following lives of degraded vices and licen-

tiousness, instead of religious purity and exemplary rectitude." Accounts of their proceedings were transmitted by the visitor to the Vicar-General; and they contained sufficient material to render the monasteries "completely infamous for their gross, absurd superstition, their shameful impositions, their abandoned, unnatural incontinency," etc.

Clerical morals and manners were not in a much better state on the Scottish side of the border. Queen Mary would seem to have regarded the health of the high Roman Church dignitary who baptised her son James with considerable suspicion; for she sent word to him to forbear to use the "spittle" on the occasion; "*she would not have a pokid priest to spit on her child's mouth.*"

Very shortly before the commencement of syphilis, the dissolute manners of the English clergy, especially of the regulars, created such noise and commotion that Pope Innocent VIII sent, in 1490, to Archbishop Merton, authorising him to admonish his abbots and friars "that, by their lewd and dissolute lives, they brought ruin upon their own souls, and set a bad example to others."

When such was the scandalous life led by some of the clergy, we cannot wonder (concluded Dr. Simpson) that, before the introduction of syphilis, Rabelais, himself at one time an ecclesiastic, should apply to gonorrhœa the very significant term of "rheume ecclesiastique"; or that, after the appearance of syphilis, this latter and greater malady should have spread speedily among all ranks, down from the clergy to the laity, and from the king to the church; and should have diffused itself by such stealthy and rapid steps over the countries of Europe as to have at first been mistaken for a malady spreading itself, *not* by impure intercourse, but by general epidemic influences.

A discussion followed the reading of this paper, in which Dr. Copland, Dr. Babington, Mr. Hunt, and Dr. McWilliam, took part.

MANCHESTER LITERARY AND PHILOSOPHICAL SOCIETY.

Quarterly Meeting, October 16th, 1860.

Dr. R. Angus Smith, Vice-President in the Chair.

ARSENIC IN COAL PYRITES.

The Chairman gave a short account of his examination of coal pyrites for arsenic. He stated that, although the knowledge of the existence of arsenic in the iron pyrites found in coal may not be considered perfectly novel, it certainly does not seem to be known that arsenic is so widely disseminated as to form an ordinary constituent of the coals burnt in our towns, and chemists of celebrity have held it, and now hold it, to be absent there. He had examined fifteen specimens of coals in Lancashire, and found arsenic in thirteen. He had also found it in a few others. Mr. Dugald Campbell had also lately found arsenic in coal pyrites. The chairman added, that this had a very direct bearing on our sanitary knowledge, and we must now be obliged now to add arsenic to the number of impurities in the atmosphere of our large towns. It is true that he had not actually obtained it from the atmosphere, but when the pyrites is burnt the arsenic burns and is carried off along with the sulphur. One or two coal brasses (as they are called) contained, copper, a metal that is also to some extent volatilized, as may be readily observed wherever copper soldering takes place. Although an extremely small amount of copper is carried up from furnaces, it is not well entirely to ignore it. The amount of arsenic, however, is probably not without considerable influence; and we may probably learn the reason why some towns seem less affected than others by the burning of coals, by examining the amount of arsenic burnt as well as sulphur.

Mr. Spence could confirm the remarks concerning the existence of arsenic in coals, as he had burnt coal pyrites for many years, and had always found a very decided amount of arsenic in the sulphuric acid made from it.

Mr. Ransome called attention to the peculiar symptoms described by Berzelius, as produced by selenium; and he considered that some similar symptoms were produced in a manner which might be explained if selenium were found in coals.

ON THE ESTIMATION OF SUGAR IN DIABETIC URINE BY THE LOSS OF DENSITY AFTER FERMENTATION.

BY WM. ROBERTS, M.D.

When a diabetic urine is fermented with yeast, its specific gravity, previously ranging from 1030 to 1050, falls to 1009 or 1002, or even below 1000. This result is mostly due to the destruction of the sugar it contained, but partly, also, to the generation of alcohol, and its presence in the fermented product. As the diminution of density must be proportional to the quantity of sugar broken up by the ferment, the amount of loss evidently supplies a means of calculating how much sugar any urine contains, always provided that the remaining ingredients of the urine continue unchanged, or become changed in some uniform ratio.

To ascertain the relation between the density lost on fermentation, and the sugar destroyed, experiments were made on the urine of diabetic patients on the following plan:—1. The amount of sugar per 100 parts was ascertained by the volumetrical method, with Fehling's test solution. 2. The density of the urine was taken. 3. Three or four ounces were then placed in a 12 oz. phial, with a drachm or two of German yeast, and having lightly covered the bottle it was set aside to ferment. 4. In about twenty-four hours the fermentation was finished and the froth dissipated. The density was then taken a second time, and the loss calculated.

By operating in this way on a specimen of diabetic urine, sp. gr. 1038·60, the following results were obtained:—sugar, per 100 parts, by the volumetrical method, 7·69: density before fermentation at 60° or D = 1038·60: density after fermentation at 60° or D′ = 1005·92: density lost, or D — D′ = 32·68.

The relation, therefore, between the density lost and the percentage of sugar, in this instance, was as 32·68 to 7·69, or as 1 to 0·235. By numerous trials with diabetic urines, of different strength, it was found that the most correct proportion was as 1 to 0·230. The corresponding formula, therefore, was:—

$$\text{Sugar, per 100 parts, or } S = (D - D') \times 0{\cdot}23.$$

The accuracy of this method was further tested by operating on diabetic urine diluted with known volumes of water or non-saccharine urine, and on solutions of loaf-sugar in water and in healthy urine.

This method of estimating sugar is especially applicable to medical practice; and the following simple and most convenient rule expresses the result of the analysis:—*Each degree of 'density lost' indicates one grain of sugar per fluidounce of urine.*

Ordinary Meeting, October 30th, 1860.

Dr. J. P. Joule, President, in the Chair.

ON THE ALLEGED PRACTICE OF ARSENIC-EATING IN STYRIA. BY DR. H. E. ROSCOE.

Professor Roscoe being anxious to obtain further definite information respecting the extraordinary statements of Von Tschudi, quoted by Johnston in his *Chemistry of Common Life*, that persons in Styria are in the habit of regularly taking doses of arsenious acid, varying in quantity from two to five grains daily, was supplied through the kindness of his friend Professor Pebal, of Lemberg, with a series of letters written by seventeen medical men of Styria, to the government medical inspector at Grätz, concerning the alleged practice. After reviewing the opinions of Dr. Taylor, Mr. Kesteven, and Mr. Heisch upon the subject, and having mentioned the results and conclusions arrived at by those who had previously interested themselves with the subject, Mr. Roscoe stated that all the letters received from the medical men in Styria agree in acknowledging the general prevalence of a belief that certain persons are in the habit of continually taking arsenic in quantities usually supposed sufficient to produce death. Many of the reporting medical men had no experience of the practice; others describe certain cases of arsenic-eating which have not come under their personal notice, but which they have been told of by trustworthy people whose names are given; whilst others, again, report upon cases which they themselves have observed. Professor Roscoe proceeded to bring forward, in the first place, evidence bearing upon the question,—Is or is not arsenious acid, or arsenic in any other form, well known to, and distributed amongst the people of Styria? He said that he had received six *grammes* of a white substance forwarded by Professor Gottlieb, in Gratz, accompanied by a certificate from the district judge of Knittfield in Styria, stating that this substance was brought to him by a peasant woman who told him that she had seen her farm-labourer eating it, and that she gave it up to justice to put a stop to so evil a practice. An accurate chemical analysis showed that the substance was pure arsenious acid. Extracts from many of the reports of the medical men were then read, all stating that arsenious acid, called "Hidrach" by the Styrian peasants, is well known and widely distributed in that country. The second question to which Mr. Roscoe sought to obtain an answer was, whether

arsenic is or is not regularly taken by persons in Styria in quantities usually supposed to produce immediate death? The most narrowly examined, and therefore the most interesting case of arsenic eating is one recorded by Dr. Schäfer. In presence of Dr. Knappe, of Oberzehring, a man thirty years of age and in robust health, ate, on the 22nd February, 1860, a piece of arsenious acid weighing four grains and a half; and, on the 23rd, another piece weighing five grains and a half. His urine was carefully examined and shown to contain arsenic; on the 24th he went away in his usual health. He informed Dr. Knappe that he was in the habit of taking the above quantities three or four times each week. A number of other cases, witnessed by the medical men themselves, of persons eating arsenic, were then detailed. Dr. Holler, of Hartberg, says that he and other persons, named in his report, guarantee that they are together acquainted with forty persons who eat arsenic; and Dr. Forcher, of Grätz, gives a list of eleven people in his neighbourhood who indulge in the practice. Professor Roscoe did not think it necessary to translate the reports *in extenso*; he gave extracts containing the portions immediately bearing upon the two questions at issue, and deposited authentic copies of the original reports with the Society, for the purpose of reference. He concluded that decisive evidence had, in his opinion, been brought forward, not only to prove that arsenic is well known and widely distributed in Styria, but that it is likewise regularly eaten, for what purpose he did not at the moment investigate, in quantities usually considered sufficient to produe immediate death.

Dr. Clay mentioned instances in which large quantities of arsenic had been prescribed for various diseases, with benefit. It was a valuable medicine, but if taken for other purposes it would produce most pernicious effects. It was a practice in some parts of the country to give it to horses to improve the sleekness of their coats.

Mr. Ransome confirmed the observation of Dr. Clay, and stated that he had long ago drawn the attention of the Society to the fact that sulphuric acid manufactured from arsenical pyrites contained arsenic, and that, this acid being employed in the manufacture of various articles used as medicine, and even as food, these likewise contained the poisonous ingredient. He had found it even in flowers of sulphur.

Mr. Pochin and Mr. Hunt remarked that the effects of breathing the vapour of arsenious acid produced in the smelting of ores were not so injurious as might be expected; occasionally, however, the workmen had to be taken off the particular work for a short time, until the poisonous effect which manifested itself by eruptions on the face had disappeared.

Editor's Letter Box.

ACTION OF MERCURY ON THE LIVER.

Letter from A. Wynn Williams, M.D.

Sir,—It appears that Dr. Inman, in his anxiety to elicit truth or discover something new, sees, or fancies he sees, certain bright rays looming in the distance, and ignores those objects and facts that are of every day occurrence, and he himself remarks, that facts alone should carry conviction against ingenious hypothesis. He asks for "proof that the liver is better for taking a rest under the influence of mercury?" He should have added, when diseased.

I think I can answer Dr. Inman's question satisfactorily by putting the following one to him. Can Dr. Inman enumerate any one organ or part of the body that is not benefited, when diseased, by rest, either physiological or mechanical, or both? Take, for instance, inflammation of the eye. What is the first order given to the patient? Desist from work, darken the room, without which all our efforts to effect a cure would be futile. In inflammation, and suppuration of the mammary gland during lactation, how readily is this affection cured by the application of belladonna, which effectually checks the secretion of milk, and thus enables nature, with very little further assistance, to complete the cure. Again, in inflammation of the kidneys, the patient is ordered to remain in bed for a twofold purpose: first, to give mechanical rest to the diseased organ; and, secondly, physiological rest to the whole body, in order to lessen the amount of waste material that is caused by exercise, a considerable portion of which would have to be excreted by the kidneys. The patient is requested to pay particular attention to the quantity and quality of the ingesta, especially to diminish the amount of the nitrogenous principles, and to take large quantities of diluent drinks, to lessen the stimulating effects of those salts that of necessity pass through the kidneys. Diaphoresis is encouraged by warmth and by administering diaphoretic remedies; and the action of the bowels by occasional doses of hydragogue cathartics, as the compound jalap powder in a solid form. Some also prescribe bleeding, either local or general, to diminish, as they suppose, the amount of blood sent to the kidneys. I presume that Dr. Inman will admit that these remedies are prescribed for the purpose of giving rest to the kidneys by diminishing their labours, and that they are benefited by that rest.

From a parity of reasoning, I boldly aver that rest must be beneficial to the liver when suffering from disease; and that every agent produces that rest which, while the amount of bile is diminished, stimulates the whole glandular system of the alimentary canal, thereby not only diverting the flow of blood from the liver, but exciting the glands of the intestines into increased activity, more especially "Brunnus" and "Peyers", and causes them to eliminate from the system not merely a larger portion of the leupertic "putrescent matter, ordinarily formed by the disintegration of the tissues or by the decomposition of an unassimilated food; but also to draw off the still more offensive products of such changes as take place in disease," much of which, under ordinary circumstances, would be conveyed to the liver, there to be eliminated, and by their presence cause so much disarrangement as to prevent the due and efficient performance of its functions.

That calomel does stimulate the glands of the intestines, and that its action upon them is more certain and powerful than any known remedy, is a fact without the shadow of a doubt, as is evidenced by its too long-continued and injudicious use, causing inflammation and sloughing of both the salivary glands, and the glands of the gastro-intestinal canal.

The fact that the liver rests or secretes less bile, as soon as food is taken into the stomach, if a new one, is not one likely to cause much surprise. The flow of blood would naturally be directed to the stomach from the neighbouring organs, and, as a consequence, the liver being one of them, would secrete less bile, having less material to work upon. Proof may be required that blood is diverted to the stomach during digestion. I remember reading somewhere of a lecturer when lecturing on enlargement of the spleen, exhibiting to his class a patient suffering from enlargement of that organ, on which, as he supposed, quinine had such a specific effect as to cause its immediate elimination as soon as it reached the stomach, when to the surprise of the lecturer, it was discovered that a glass of water had a precisely similar effect, as, in fact, had everything else when first introduced into the stomach. As there is such an intimate connexion between the liver and the spleen, I think it could readily be believed that what would diminish the amount of blood in the one would do so in the other. Now, the rest produced under these circumstances cannot for a moment be considered as lessening the amount of work to be performed by the liver: that is, the daily average quantity of bile secreted by the liver would not in the least degree be diminished by any such rest; whereas under the action of calomel, when "purging is present", the loss of bile may amount very nearly to one-half, as demonstrated by Dr. Scott and mentioned by Dr. Inman.

Dr. Inman, in his first letter, has drawn out a long list of the ill effects of mercury when carelessly and injudiciously administered. With all that he there states I quite agree, and believe that it would have been very *à-propos* ten or twenty years ago. No one would think of "taking the drug systematically" in the present day. It is not, perhaps, generally known that this long list of ills can almost instantaneously be cut short by administering a few doses of chlorate of potash, and which does not diminish any specific effect the mercury may possess. It must not be supposed that I argue for the indiscriminate use of mercury in diseases of the liver, as many of its diseases and misnamed disorders are readily cured by milder remedies accompanied by appropriate diet. But unfortunately, in these go-a-head times our patients will not wait to be cured in a rational way, unless it be, indeed, under some new-fangled name. When, therefore, we are obliged to use the Armstrong guns of our armoury, let us endeavour to do so with judgment and discrimination, and not altogether ignore them.

For a further exemplification of the benefit of rest in the treatment of diseases, whether surgical or medicinal, I cannot

do better than refer your readers to the very able lectures delivered by Mr. Hilton at the College of Surgeons, and now in course of publication in the *Lancet*. I am, etc.,

A. Wynn Williams, M.D.

20, King Street, Portman Square, London, Nov. 13th, 1860.

THE LAMP-BATH.

Letter from Charles Taylor, M.D.

Sir,—Apropos to the discussion which has recently occupied a place in your columns on Turkish baths, permit me to call the attention of your readers to a very simple method of exciting the emunctory function of the skin, in my opinion quite as effectual, and possessing advantages peculiarly its own. I allude to the lamp-bath, which is thus applied. The patient, *in puris naturalibus*, is seated on a common wooden chair with his feet upon a low stool, the body is then enveloped in two or three blankets, the head being excluded, and a large spirit lamp placed under the seat; in a few minutes the skin becomes moist, and in about a quarter of an hour the perspiration streams down the body and is collected in beads upon the face; this is kept up so long as may be considered necessary, the patient meantime drinking one or two tumblers of water, when the blankets are rapidly removed, and he is subjected to a douche of two pails of cold water, and dried with much friction, after which a smart walk in the open air may be taken. The process does not occupy more than three-quarters of an hour, and may be applied at any time in the invalid's bedroom. I believe the profuse perspiration thus excited, and which may be carried to any reasonable extent, effects all the good that can be accomplished by the *calidaria* of the Turkish baths, while its extreme simplicity and portability ensure for it advantages as a therapeutic agent that these institutions can never command; among the more important of which, I would enumerate the fact that during the whole process the patient breathes cool air instead of that of an apartment heated to an extent necessary to produce such an effect, and indeed may, as I have seen in the summer time, be placidly seated regarding a beautiful landscape from an open window during its administration; thus the ill effects of respiring hot air experienced by many even in over-heated rooms, such as difficulty of breathing, violent palpitation, giddiness, faintness, etc., are all avoided; while the fact that it is used in the patient's own apartment, and may at first be moderated to any extent that may suit his fancy, materially lessens the risk of disagreeable nervous symptoms very likely to be experienced in invalids; who, moreover, are frequently unable or unfit to visit the public baths, or unwilling to expose their infirmities to the gaze of strangers, who, I may observe, *en passant*, would be little likely to patronise establishments where they were liable to meet as "companions of the bath" persons suffering from lepra, psoriasis, dropsies, influenza, etc.

I have seen the above process attended with the very best effects in some cases of obstinate skin-disease, in rheumatism, œdematous swellings, catarrh, syphilis, albuminuria, torpor of the liver, etc.; and have more particularly noted its good effects in cases where individuals, from leading a sedentary and town life, had grown fat, pallid, flabby, and altogether out of condition. Such speedily lose fat and gain muscle: the complexion clears; the colour heightens; the skin becomes smooth and polished. They experience a feeling of lightness and buoyancy to which they have long been strangers, and soon add to the appetite of a wolf the digestion of an ostrich. It is seldom omitted in the treatment of persons subjected to what is known as the water-cure, and has been employed for years in the hydropathic establishments to which used up men about town notoriously resort, and with the best result, to recruit their injured health and shattered frames. By fixing a small saucepan, containing water, over the lamp, it is converted into a vapour-bath, medicated or not; and may be used for sulphureous and mercurial fumigations.

I must confess that I cannot see the force of the objections that I have heard urged against the employment of this simple remedy. We are told—1. That the patient is surrounded with an atmosphere deprived of its oxygen, and loaded with carbonic acid, the product of the combustion of the spirit of the lamp; and that this, by interfering with the respiratory function of the skin, must have a most deleterious effect; 2. That the atmosphere surrounding the patient is stagnant, and does not circulate; and 3. That it is an advantage for the patient to breathe the heated air, as was done in the baths of the ancient Romans.

With regard to the first, it appears to me to be of very slight importance if the air were loaded with carbonic acid, as the respiratory function of the skin, while bathed in perspiration, which is coursing on all sides in little rivulets, in quantity sufficient to saturate the blanket or cushion on which the patient is seated, and drops from the footstool to the floor, must be reduced to nothing; but I cannot admit that the patient is surrounded by such an atmosphere, as the specific gravity of the carbonic acid would ensure its falling below the level of the chair on which the patient is seated. In answer to the second, I contend that the air surrounding the patient is not stagnant, but circulates freely; cold air, according to a natural law, rapidly taking the place of the hot as fast as heated, which must necessarily be the case, unless the patient were hermetically sealed up, when the combustion of the lamp could not be supported. With regard to the last, I own that I am sceptical as to the benefit to be derived by a delicate invalid from inspiring air hot enough to cook a chop.

I am, etc. Charles Taylor,

Late Physician to the Asylum, Walton, Liverpool.

Mansfield Road, Nottingham, Nov. 20th, 1860.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

** In these lists, an asterisk is prefixed to the names of Members of the Association.*

BIRTHS.

Of sons, the wives of—

Denny, John, Esq., Brompton, on November 13. (Stillborn.)

*Lakin, J. H., M.B., Kineton, on November 8.

Of daughters, the wives of—

*Leslie, Louis, M.D., Alton, on November 13.

Wolstenholme, John H., Esq., Holywell, on October 26.

MARRIAGES.

Carter, Thomas A., M.D., of Leamington, to Jane E., only daughter of the late Charles Brown, Esq., at Foulden, Berwickshire, on November 16.

Douglas, James, Esq., only son of James Douglas, M.D., of Quebec, to Naomi, third daughter of the late Walter Douglas, Esq., of Glasgow, at the British Embassy, Frankfort-on-the-Maine, on November 15.

Norton, Charles E., Esq., to Mary, second daughter of the late John Sweatman, M.D., of Berners Street, at Christ Church, Marylebone, on November 16.

Ogilvie, Charles F., M.D., Bombay Army, to Anne E., third daughter of James Pilcher, Esq., of Bow, at All Saints, Blackheath, on November 15.

Price, Captain George, 1st Bengal Fusiliers, to Fanny D., eldest daughter of F. W. Wallisford, M.D., Colombo, on October 9.

DEATHS.

Campbell. On November 12, at 44, Adelaide Road, Haverstock Hill, aged 78, Mary, widow of Dougal Campbell, M.D., late of the Royal Artillery.

Coote, Charles T., M.D., Assistant-Physician to the Middlesex Hospital, at Hyères, aged 36, on November 13.

Corner. On November 18th, at 3, David Place, Poplar, aged 12 months, John E., son of Francis M. Corner, Esq., Surgeon.

Delmege. On November 17th, at Clifton, aged 8 months, Hamilton H. C., son of C. C. J. Delmege, M.D., Staff-Surgeon-Major.

Molloy, Robert, M.D., at Hounslow, aged 45, on Nov. 14.

Pemell, Peter, Esq., Surgeon, at Canterbury, on Nov. 13.

Tweddell, Fenwick M., Esq., Staff-Surgeon, at Hartley Wintney, on November 14.

APPOINTMENTS.

Gray, Edwd. B., M.B., elected Physician to the Radcliffe Infirmary, Oxford, in the room of G. Rolleston, M.D., resigned.

Livett, Henry W., L.R.C.P.Ed., appointed Mayor of Wells for the ensuing year.

Price, Richard E., Esq., Surgeon, appointed Mayor of Marlborough for the ensuing year.

PASS LISTS.

ROYAL COLLEGE OF SURGEONS. MEMBERS admitted at a meeting of the Court of Examiners, on *Nov. 15th*:—

ATTMANN, H. J., Islington
BROWNE, F. H., Stowe Maries
CLARKE, A. F. S., Gordon Sq.
FORD, B. B., Longton
GOODALL, Henry, Madras
HICKS, George A., Torquay
HICKS, E. B., Greenhithe
ISHERWOOD, F. W., Clitheroe
IRONSIDE, William, Kennethmont, N.B.
LEVIS, John S., Skibbereen
LLOYD, Samuel, Smethwick
MANLY, George V. T., Sierra Leone
MARCH, John, Hounslow
MILSON, Richard H., London
ORTON, Theodore, Littlebourne
O'TOOLE, Wm. H., Dublin
PITT, Wm., Willenhall
SAVAGE, T., Wolverhampton
SHAROOD, Edward J., Brighton
WALLS, C., Boothby, Spilsby
YOUNG, Edward P., Delamere Crescent
YOUNG, George E., Mechlin

STATISTICS OF HOMŒOPATHY. According to the *Illustrirte Zeitung*, there are 3254 homœopathic practitioners, of whom 1612 practise in America. In this latter country, they have three special faculties, in Ohio, in Chicago, and in Philadelphia. As to homœopaths in Europe, it is known that they must undergo a regular course of study, and be examined by an allopathic board, before they can devote themselves to their speciality. There are five homœopathic professorial chairs in Germany—two in Prague, two in Munich, and one in Vienna, without counting a professor of veterinary medicine in the last place. Germany possesses in all 506 homœopaths (of whom 471 are doctors of medicine), and 35 veterinarians; 21 practise in the hospitals; 37 are forensic physicians and surgeons. Of homœopathic hospitals, properly so called, there are but ten, nine being in Austria; and of these, the three most important are in Vienna, containing respectively 160, 80, and 60 beds, without counting the house of St. Lucke, at Kœthen. There are eight homœopathic journals, of which four are scientific, and four popular. The largest association is that which is named "Central Society of Homœopaths in Germany", which numbers 230 members. There are in France 405 homœopaths; in England, 244 (with two hospitals in London); in Spain, 94 (with a hospital at Madrid); in Belgium, 26; in Holland, 7; in Switzerland, 34; in Italy, 141; in Scandinavia, 42; in the Danubian Principalities, 4; in Russia, 67 (with a hospital in Moscow); in Portugal, 47; in Asia, 4; in Africa, 6. In America, there are large homœopathic hospitals in Boston, Chicago, and Philadelphia, without counting the cliniques in many places. The following princes have homœopathic physicians:—The King and Queen of Hanover; the King of Sardinia; the Pope; the Queen of Spain; the Dukes of Saxe-Cobourg, Anhalt, etc.; the reigning Princes of Sondershausen and Lichtenstein, etc. There are eleven homœopathic practitioners in military service. (*Journal de Médecine et de Chirurgie Pratiques.*)

HEALTH OF LONDON—NOVEMBER 17TH, 1860.

[*From the Registrar-General's Report.*]

		Births.	Deaths.
During week	Boys.. 937 / Girls.. 863	1860	1183
Average of corresponding weeks 1850-9		1589	1264

Among the causes of death were—bronchitis, 138; pneumonia, 109; phthisis, 156; small-pox, 3; scarlatina, 36; measles, 43; diphtheria, 12; hooping-cough, 46. The deaths from pulmonary diseases (exclusive of phthisis) were 270, being 33 above the corrected average.

Barometer:
Highest (Sun.) 29·667; lowest (Sat.) 29·166; mean 29·416.

Thermometer:
In sun—highest (Mon.) 78·0 degs.; lowest (Sat.) 44·0 degs.
In shade—highest (Th.) 52·9 degs.; lowest (Mon.) 33·0 degs.
Mean—41·7 degrees; difference from mean of 43 yrs.—1·6 degrees.
Range—during week, 20·0 degrees; mean daily, 11·5 degrees.
Mean humidity of air (*saturation*=100), 94.
Mean direction of wind, Var.—Rain in inches, 0·92.

TO CORRESPONDENTS.

Communications have been received from:—DR. A. T. H. WATERS; DR. J. DULVEY; MR. J. M. BURTON; DR. LIONEL BEALE; DR. P. H. WILLIAMS; DR. MCWILLIAM; DR. E. B. GRAY; MR. AUGUSTIN PRICHARD; MR. J. H. WOLSTENHOLME; DR. J. C. HALL; DR. T. SKINNER; MR. N. CRISP; DR. COPEMAN; MR. PRICE; DR. W. ADDISON; and DR. C. TAYLOR.

BOOKS RECEIVED.

[* *An Asterisk is prefixed to the Names of Members of the Association.*]

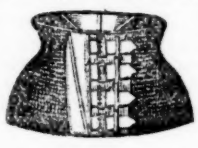
1. Transactions of the Pathological Society of London. Vol. 8. 1860.
2. Anatomy of the Arteries of the Human Body. By John Hatch Power, M.D. With Illustrations by B. Wills Richardson, F.R.C.S.I. Dublin: Fannin and Co. London: Longman and Co. 1860.
3. An Epitome of Surgery. By J. Bradnell Gill, M.D. London: H. Baillière. 1860.

ADVERTISEMENTS.

Moveable Artificial Eyes.--The Prize MEDAL of the Great Exhibition, 1851, was awarded exclusively to the EYES made by W. R. GROSSMITH, 175, Fleet Street, London, Maker to the Senior Surgeons of the Ophthalmic, Bartholomew's, St. Thomas's, St. George's, and all the principal London Hospitals. They are fitted in a few hours, without pain or operation, in every case, where sight has been lost; they effect a perfect MOVEMENT, in accordance with the action of the natural eye; the colours of the Iris are closely matched, and they are the only Artificial Eyes yet invented not liable to crack in wearing. Sent by post to all parts of the world, from GROSSMITH'S Artificial Eye, Leg, Hand, and Nose Manufactory, 175, Fleet Street, London. Established 1760.

J. & E. BRADSHAW, late

Shoolbred and Bradshaw, 34, JERMYN STREET, beg to call attention to the various improvements in PATENT ELASTIC STOCKINGS, BELTS, KNEE-CAPS, SOCKS, and Ladies' and Gentlemen's SPINE SUPPORTERS. A new description of BELT, invaluable for prevention of Cholera, and the cure of Rheumatism, Lumbago, etc. N.B. Every description of INDIA-RUBBER BANDAGE, vulcanized on the newest principle.



Directions for measurement sent by post—N.B. A liberal Discount to the Profession.

A female to attend on Ladies.

PULVIS JACOBI VER, NEWBERY'S.

GENTLEMEN,—We beg to call your attention to the following paragraph by "*J. Cheyne, M.D., Physician to the Hardwicke Fever Hospital, Dublin, in his paper on the virtues of James' Powder in the Apoplectic Diathesis*:"—

"She began a course of James' Powder in the latter end of September: the first night she took only two grains, and every succeeding night an additional half grain, till the dose amounted to twenty grains. She took *twenty grains every night for five weeks*, when she found herself so well that she discontinued the medicine."—"*Dublin Hospital Reports*," *vol. 1. p.* 319.

To secure the dispensing of the *original* preparation, which, for 114 years, has been sold by the Newbery family in St. Paul's Churchyard, it is necessary to prescribe it as "*Pulvis Jacobi Ver, Newbery's*," otherwise another article (wanting in the best properties, and recommended to be given in a different code of dose, *though called by the same name*), will be substituted for the original medicine. This, of course, cannot but have an effect other than that expected, and will thereby lead the practitioner totally to discard it from his daily Pharmacopœia, as a preparation whereon no dependance can be placed. We hope the above extract will prove that when the genuine medicine is used, faith may be reposed in it.—Yours faithfully,

F. NEWBERY & SONS.

45, St. Paul's Churchyard.

NOTICE OF REMOVAL.

W. LADD, MANUFACTURER OF MICROSCOPES, IMPROVED INDUCTION COILS, AND PHILOSOPHICAL INSTRUMENTS of every description, begs to inform the Scientific Public that he has removed to more extensive premises, situated at

11 & 12 Beak Street, Regent Street, W.